

THE CLASSIFICATION OF THE NATICIDAE (MOLLUSCA: GASTROPODA): REVIEW AND ANALYSIS OF THE SUPRASPECIFIC TAXA

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ABSTRACT. This paper provides a critical analysis of the 25 family level names and the 253 genera and subgenera in the gastropod family Naticidae (Prosobranchia). My systematic conclusions are based upon reexamination of the relevant type species and original descriptions, along with subsequent interpretations of the various taxa, Recent and fossil. Of the 25 family level names, 6 are here considered valid and the remainder synonyms. For the 253 genus level taxa, 65 are nomenclaturally available and in current usage; 56 are known junior synonyms; 10 are junior homonyms; 14 are *nomina nuda*; 59 are errors or emendations; and 4 are indeterminate and herein rejected as *nomina dubia*. An additional 45 genera, originally described in the Naticidae (or based on "naticid" species), are referred to various other gastropod families. An historical review of the classification of this family is presented.

INTRODUCTION

This research is preliminary to a comprehensive reclassification of the Naticidae. The ultimate goal of a classification is a complete hierarchy into which each species can be placed, with the appropriate genus and family level names fully elaborated. Traditionally, systematists used the "top-down" approach of evolutionary classification, in which the categories were subdivided, starting at the highest level and proceeding down to the species. More recently, cladistic approaches emphasize the "bottom-up" approach in which one first starts with a cladogram of the species

(or sometimes genera, instead) and then determines the proper ordering and ranking of the higher categories. However, the latter approach not only requires a comprehensive understanding of all the species, but also has difficulty in dealing with fossil taxa of different time periods. That is, while depicting contemporaneous "sister taxa," it has methodological and epistemological problems in incorporating ancestor-descendant relationships.

In any event, since there are over 2,700 described species (fossil and Recent) of Naticidae, it is unlikely (if ever) that the species level nomenclature of this family will be fully rectified for the preparation of a complete classification. Furthermore, although eventually we will know the characters and relationships of the approximately 200 valid Recent species, it will not be possible to reconstruct the complete fossil history of this family. Even though the naticids, living in a sedimentary habitat, have perhaps the best fossilization potential among the Gastropoda, there are still large gaps in their fossil record—both temporally and geographically. The characters available from the fossils are, of necessity, more limited than those that are available for the Recent species. Therefore, a classification of the Naticidae, including the fossils, can only be an approximation at best. While it will be reasonably satisfactory for the Recent species, as well as for some of the extinct taxa, there will be many extinct species (particularly from the Mesozoic) that will defy reconciliation with a sophisticated classification. The term

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"*incertae sedis*" can be used to indicate taxa of unknown (or uncertain) relationships; and "*sedis mutabilis*" for taxa of interchangeable positioning (Wiley, 1981: 211). While these terms may be of some heuristic value in indicating the state of knowledge with respect to fossil taxa, they do indicate the limitations of classification with respect to fossils.

HISTORICAL REVIEW

The following chronological analysis of the major "innovations" in naticid classification starts with Aristotle and Linnaeus and proceeds to the present. This concise synopsis does not attempt to discuss every relevant publication. The emphases include critical analyses of several major problems (*e.g.*, the treatment of European fossil naticids in the early 1800s) and discussion of the comprehensive molluscan classifications.

Aristotle was the first to describe naticids; his term "*Neritae*" actually encompassed both naticids and hermit crabs occupying naticid shells (Aristotle, 345–342 B.C., Book 4(4):42, 43; Récluz, 1856:44–45). Linnaeus (1758) described seven species subsequently referred to the Naticidae; he placed them in the genera *Helix* and *Nerita*. The former name included a heterogeneous assemblage of marine, land, and freshwater snails; the latter name was somewhat more focused in comprising prosobranch gastropods. Specifically, he divided *Nerita* into three groups: "*umbilicatae*," "*imperforatae labio edentulo*," and "*imperforatae labio dentato*." The latter two groups represent the modern concept of Neritidae and the former corresponds to the Naticidae. This correlated with the pre-Linnaean work of Adanson (1757) who had separated out "*Natica*" from "*Nerita*"; however, the former name was not used by Linnaeus. Further discussion of the Linnaean species and their classification is provided by Kabat (1990).

The remaining half of the eighteenth century set the stage for several significant problems regarding naticid classification

and higher level nomenclature. Scopoli (1777) was the first post-Linnaean author to validate Adanson's *Natica*; however, Lamarck (1799) was often incorrectly considered to be the source for this name by authors unaware of Scopoli. Since the type species are not congeneric, Lamarck's name is a junior homonym but not a junior synonym of *Natica* Scopoli; the name *Naticarius* Duméril, 1806 is available for "*Natica sensu* Lamarck." The generic names of Duméril have often been rejected by subsequent authors since they were originally intended to represent the "animal" (*i.e.*, "*Natica*" as the shell, "*Naticarius*" as the animal within the shell). Both generic names remain widely used and it would be misguided to reject *Naticarius* as the only other available name is *Naticus* Montfort, 1810, which has not been used by other authors. Article 17 of the *International Code of Zoological Nomenclature* (1985) clearly states that names such as those of Duméril are nomenclaturally available.

Röding (1798) provided many new names that preempted the better-known names of Lamarck's classical work (1799). Röding placed the naticid species into three genera: *Sinum*, *Albula*, and *Cochlis*; these genera were widely separated by Röding and he was unaware of their relationships. *Sinum* is the currently accepted name for the auriform naticids which Linnaeus had placed in *Helix* and is the basis for the subfamily Sininae. The equivalent genus *Sigaretus* Lamarck, 1799 was erected for the same species, and the latter name was widely used in the nineteenth century (Kabat, 1990:4–5). *Albula* and *Cochlis* represented a separation of the species of "*Natica*" (that name was not used by Röding). *Albula* corresponded to those naticids with corneous opercula and glossy shells; as a junior homonym of *Albula* Osbeck, 1762 (Pisces), it was replaced by *Polinices* Montfort, 1810 (the latter the basis for the subfamily Polinicinae). Röding's work was important in establishing this separation of the naticid species into three groups, which

today correspond to three (of four) naticid subfamilies.

Lamarck (1804) initiated a major nomenclatural controversy, involving recognition and classification of fossil naticids. The first post-Linnaean naticid described was a fossil from England (*Helix mutabilis* Solander in Brander, 1766), but the first explicit discussion of fossil naticids was with the description of Paris Basin fossils (Lamarck, 1804). He used the genus *Ampullaria* Lamarck, 1799 (originally proposed for freshwater gastropods) for twelve fossil species now attributed to the Naticidae (Lamarck, 1804:30–34). He noted that these fossils could be confounded with those of true naticids but maintained their identity as ampullariids. This was questioned by Deshayes (1838:528–529) who concluded that "... aussi Lamarck commit plusieurs erreurs en comprenant dans son genre des espèces fossiles ..." and thought they were more likely to be naticids; this is corroborated by the presence of fossils of other marine taxa.

Bowdich (1822) erected *Ampullina* for these marine fossils and restricted *Ampullaria* to the freshwater shells. Bowdich's name was often misinterpreted, as his illustration was poor; however, it was significant in separating the fossil naticids from the freshwater ampullariids. Concurrently, James Sowerby (1812–22) and James de Carle Sowerby (1822–46) included descriptions of a number of fossil species of *Natica* and *Ampullaria*. It was noted (Sowerby, 1821:151; 1822:97; 1826: 40) that the fossil species placed in the latter genus should be separated from *Ampullaria sensu strictu*; and the substitute name *Globulus* was proposed (J. de C. Sowerby, 1835:246). The Sowerbys had overlooked *Ampullina* Bowdich; furthermore, *Globulus* was a junior homonym of *Globulus* Schumacher, 1817 (Trochidae).

Two authors independently recognized this problem and attempted to resolve it. The first was Agassiz (in Sowerby, 1837a,b: 14; 1839a,b:14), whose unauthorized "pirated" translations of the Sowerbys's work

included a revisionary note proposing the name *Euspira* for these fossil naticids. Ironically, Agassiz (1848:437) later listed "*Euspira* Agass. Moll., 18.." since he was uncertain as to the original attribution of his own name! Swainson (1840) emended *Globulus* to *Globularia*; both replacement names have had a checkered and overlapping history, especially with regard to their type species (see the generic compilation for further discussion). The resolution is the recognition of three valid generic names for certain European (and other) Cenozoic naticids: *Ampullina*, *Euspira*, and *Globularia*. In this century, *Euspira* has been extended to cover several Recent species sometimes referred to *Lunatia* Gray, 1847. Some authors have desired to maintain the use of *Lunatia*, but that name is unquestionably a junior synonym of the obscure taxon *Laguncula* Benson, 1842. The best solution is to treat both *Laguncula* and *Lunatia* as synonyms of *Euspira*.

Throughout the rest of the nineteenth century to present times, numerous additional fossil naticid genera were described. In a few cases, some taxa were from the Paleozoic and referable to other families since the oldest naticids are from the Mesozoic. Nevertheless, we are left with a proliferation of fossil taxa which remain problematical in their placement within a comprehensive classification of the Naticidae. Usually these descriptions were not accompanied by explicit discussions of naticid classification.

The discussion and description of new Recent genera of naticids continued unabated during the 1800s. One problem included the confusion of *Sinum* and lamellariids in *Sigaretus* (= *Cryptostomus*). Both groups are superficially similar in their auriform shells, and several monographs referred lamellariids to these naticid genera (and *vice versa*); these misidentifications were discussed by Gray (1824).

The twentieth century brought noteworthy modernization to the classification of the naticids. Four works from the in-

TABLE 1. CLASSIFICATIONS OF THE NATICIDAE (1925-1937). INDENTATIONS INDICATE SUBGENERA AND SECTIONS; MISSPELLINGS ARE CORRECTED HEREIN.

Cossmann (1925:13-14, 98-99)*	Thiele (1929:259-262)	Finlay and Marwick (1937)
Euspiridae	Naticacea	Naticidae
Pictavia		Naticinae
Ampullina	Naticidae	Natica
Megatylotus	Frovina	Naticarius
Deshayesia	Frovina	Tanea
Cernina	Sublacuna	Tectonatica
Ampullonatica	?Elachisina	Taniella
Vanikoropsis	Acrybia	Notocochlis
Crommium	?Amaurella	Proxiuber
Amauropella	Amauropsis	Stigmaulax
Wexfordia	Acrybia	Gennaeosinum
Greggsia	Polynices	Euspira
Ampullospira	Friginatica	Tasmatica
Amauropsis	Lunatia	Astrocochlis
Euspirocrommium	Payraudeautia	Pristinacea
Tylostoma	Naticina	Carinacea
[Naticopsidae]	Polynices	Magnatica
[Neritopsidae]	Neverita	Spelaenacea
Naticidae	Glossaulax	Nacca
Naricopsina	Mammilla	Payraudeautia
Gyrodes	Propesinum	
Sigaretopsis	Natica	Poliniceinae
Natica	Cryptonatica	Polinices
Nacca	Natica	Conuber
Stigmaulax	Stigmaulax	Mammilla
Neverita	Globularia	Polinella
Tectonatica	Sigaretus	Neverita
Payraudeautia	Eunaticina	Cepatia
Amauropsina	Heliconatica	Eunaticina
Polynices	Sigaretus	Pervisinum
Mammilla	Haliotinella	Sigaretotrema
Pliconacea		Sigatica
Lunatia		Lunatia
Labellinacea		Uberella
Cepatia		Friginatica
Sigaretus		Amauropsona
Sigaretotrema		Amauropsona
Eunaticina		Globisiniae
		Globisimum

* The nominate subgenera and sections are not included since Cossmann always listed them first.

terregnum stand out in their comprehensive and critical approach. Cossmann's terminal volume of his compilations of fossil mollusks (1925) covered the majority of the then known fossil naticid taxa, with extensive commentary. He referred the naticids to two families, which were incongruously separated by the Paleozoic Naticopsidae and Neritopsidae (Archaeogastropoda) (Table 1). The first was the

Euspiridae with six extinct genera including nine additional subgeneric and section names (Cossmann, 1925:13-14). This family is loosely equivalent to the current subfamily Ampullospirinae (Cox, 1930:170); but, as the genus *Euspira* was not included by Cossmann, one wonders why that family name was used. The second family recognized was the Naticidae, with five genera (two extant) including fourteen

additional subgeneric and section names (Cossmann, 1925:98–99). This well-illustrated work is otherwise flawed by its reliance on the generic assignments of other authors, since Cossmann could not always examine the original material. The higher standards of the earlier volumes in this series were not met because of the posthumous publication of his last volume.

Thiele's work (1929–31), although limited to the Recent taxa, represented the first thorough synthesis of conchological and anatomical information in the classification of mollusks. For the subclass Prosobranchia, he erected three orders, of which the Mesogastropoda contained 15 “Stirps” (=superfamilies), the twelfth being the monofamilial Naticacea. He thus confirmed the somewhat isolated placement of the naticids, in that no other families seemed directly related. For the Naticidae, Thiele (1929:259–262) recognized 8 genera, including 20 subgenera (Table 1).

The monograph of the early Tertiary Wangaloan fauna of New Zealand by Finlay and Marwick (1937) belies its systematic importance: there is an extensive discussion of the classification of the Naticidae (pp. 47–57), including the descriptions of six new genera. Evolutionary relationships are obscured because an overabundant nomenclature precludes comparisons with other faunas. Three subfamilies and 34 genus level taxa were recognized: Naticinae, Poliniceinae, and the monogenetic Globisininae (Table 1). Beu and Maxwell (1990) provided further discussion of some of these taxa.

Wenz (1941:1017–1045) brought together the most comprehensive compilation of fossil and Recent naticid taxa. He recognized the monofamilial superfamily Naticacea, with six subfamilies and 75 genus level taxa: Gyrodinae (extinct), Globulariinae, Polinicinae, Globisininae, Siniinae, and Naticinae (Table 2). Although he synonymized numerous generic names and simplified the generic taxonomy, he could not treat critically the large number of

genera described in the 1930s, so some of the names which he recognized have been (or will be) subsequently synonymized.

More recently, Taylor and Sohl (1962) presented a classification of the Gastropoda; their placement of the Naticidae essentially followed Thiele and Wenz, *i.e.*, a monofamilial superfamily between the Atlantacea and Tonnacea. Their estimate of a total of 75 genera of naticids is also from Wenz (1941). This work was radically revised by Golikov and Starobogatov (1975) who not only elevated the Aspidophora (=Naticacea) to an order, but also elevated six previously recognized subfamilies to families: Gyrodeidae, Globulariidae, Polinicidae, Sinidae, Choristidae, and Naticidae. Schileyko (1977) recognized three Recent families of naticids (Globulariidae, Polinicidae, and Naticidae, the latter including the Sininae) (Table 3). In a review of the Russian naticids, Golikov and Sirenko (1983, 1988) replaced the Aspidophora with the wholly equivalent “Order Naticiformes” (emended from “Naticata” Pchelintsev [1963: 20]). In another extreme revamping, Golikov and Starobogatov (1989:66) divided the Naticiformes into two suborders: “Globularioidei” (Golikov and Starobogatov, 1989:66, 73) and “Naticoidei” (Pchelintsev, 1963).

In contrast, we have several species level monographs which presented generic classifications in the context of their faunal treatments. It must be remembered that these authors only considered the taxa from one area and their classifications were not intended to be of the entire family. Oyama's (1969) preliminary treatment, marred by misspellings, of the Recent Japanese naticids separated the subfamily Poliniceinae into three tribes (Table 3). A more critical faunal work was that of Marinovich (1977), who monographed the Cenozoic naticids of the Eastern Pacific, reviewing a number of fossil genera; again, he was not able to make global comparisons and some of his conclusions will have to be modified. His subfamilial classification (Ampullospirinae, Polinicinae, Nati-

TABLE 2. CLASSIFICATION OF THE NATICIDAE (1941). INDENTATIONS INDICATE SUBGENERA AND SECTIONS; MISSPELLINGS ARE CORRECTED HEREIN.

Wenz (1941:1017-1045)		
Naticacea	Polinicinae	Globisininae
Naticidae	Frovina	Globisimum
Gyrodinae	Prolacuna	Sininae
Naricopsina	?Elachisina	Sinum
Gyrodes	Polinices	Ectosimum
Sigaretopsis	Glossaulax	Heliconatica
Globulariinae	Conuber	Haliotinella
Pictavia	Mammilla	
Ampullina	Polinella	Naticinae
Ampullinopsis	Dallitestra	Natica
Pseudamaura	Placonacca	Naticarius
?Pseudotylostoma	Neverita	Natella
Globularia	Cepatia	Quantonatica
?Walua	Eunaticina	Tanea
Eocernina	Pervisinum	Tectonatica
Deshayesia	Sigaretotrema	Taniella
Nanggulania	Sigatica	Notocochlis
?Ampullonatica	Lunatia	Proxiuber
Vanikropis	Uberella	Stigmaulax
Amaurellina	Friginatica	Gennaeosimum
Crommium	Amauropsona	Nerinatica
Pachycrommium	?Billiemia	Euspira
Euspirocrommium	Bulbus	Tasmatica
Lacunaria	?Amaurella	Austrocochlis
Tylostoma	Amauropsis	Pristinacca
?Stelzneria	Heligmope	Carinacca
	Amauropsina	Magnatica
	Wexfordia	Spelaenacca
		Nacca
		Payraudeautia

cinae, Sininae) is that which is currently used (Table 3). Majima (1989) reviewed the Cenozoic naticids of Japan; this work is of higher standards than is Oyama's, but the overall scheme remains that of Marinovich.

Recently, Kase (1990:565) confirmed that the aberrant "*Natica*" *fluctuata* Sowerby is actually referable to the Architae-nioglossa; unfortunately his conclusions are affected by several misinterpretations: (1) he used *Globularia* rather than *Cernina* for this species (see the discussion of the two genera in the catalogue herein), (2) he stated that *fluctuata* was the only living species of the "family" Ampullospiridae (=Ampullospirinae)—in fact, there is also *Amauropsis* with several Recent species, and (3) since *fluctuata* was not naticid, he

then extrapolated this result to conclude that all of the ampullospirine species (and genera) were also not naticid and were all to be removed from the Naticidae. Kase did not analyze the numerous described taxa (Recent and fossil) of the Ampullospirinae to determine their relationships, nor did he provide any criteria by which these taxa may be differentiated as ampullospirines. By shell characters alone, *fluctuata* shows little relationship to the other ampullospirines and merely demonstrating that this species is non-naticid does not prove that the other taxa of this subfamily are also not naticids.

To summarize, starting from an initial confusion of *Natica* with *Nerita*, we have advanced to a more sophisticated modern classification. Nevertheless, divergent ap-

TABLE 3. CLASSIFICATIONS OF THE NATICIDAE (1969–1977). INDENTATIONS INDICATE SUBGENERA AND SECTIONS; MISSPELLINGS ARE CORRECTED HEREIN.

Oyama (1969:69–70)	Marinovich (1977)	Schileyko (1977)
Naticidae	Naticacea	Order Naticiformes
Globisininae	Naticidae	Superfamily Naticoidea
?Bulbus		
?Amaurella	Ampullospirinae	Globularidae
	Amauopsis	Globularia
Poliniceinae	Lacunaria	Polinicidae
Poliniceini	Crommium	Polinices
Lunatia	Eocernina	Amauopsis
Neverita	Ampullospira	Conuber
Glossaulax	Tejonia	Falsilunatia
Polinices	Euspirocrommium	Frovina
Mammilla	Pachycrommium	Glossaulax
	Amaurellina	Lunatia
Eunaticini	Gyrodes	Mammilla
Eunaticina		Neverita
Sigaretotrema	Polinicinae	Prolacuna
Sigatica	Polinices	
	Euspira	Naticidae
Simini	Hyperita	Naticinae
Sinum	Mammilla	Natica
Ectosinum	Neverita	Euspira
	Glossaulax	Scarlatia
Naticinae	Calinaticina	Tectonatica
Natica	Bulbus	
Naticarius	Choristes	Sininae
Notocochlis		
Paratectonatica	Sininae	Sinum
Cryptonatica	Sinum	Ectosinum
Tanea	Eunaticina	Eunaticina
	Naticinae	
	Natica	
	Naticarius	
	Carinacca	
	Lunaia	
	Glyphepithema	
	Stigmaulax	
	Tectonatica	
	Cryptonatica	

proaches have been utilized, and problems with the placement of various fossil taxa remain. In particular, the status of the Triassic–Jurassic “naticids” is doubtful since they may instead be referable to the Neritoidea or to extinct Mesozoic families. As yet, there is no resolution to this problem; future research may elucidate the familial status of these early Mesozoic taxa and determine the origin of this family. Usually the family is presumed to have originated

in the Triassic (Wenz, 1941), though it may prove to have arisen in the Jurassic.

FAMILY LEVEL NAMES

This section treats all the taxa proposed for the Naticidae at the family level (*i.e.*, superfamily, family, subfamily, tribe). As systematists are well aware, the dating and attribution of these names can be problematical, since the first author to use such a

name rarely indicated that it was a new name. Several relevant principles from the *International Code of Zoological Nomenclature* (1985) should be kept in mind. When a name is initially established for a certain rank, it is considered to be simultaneously established at all other family level ranks, with the same author and date (Article 36a). Additionally, if the type genus is a junior synonym, then that family name can only be replaced if there is already another, earlier family name based on the senior generic name, in order to stabilize nomenclature, unless this change in family names was made before 1961 (Article 40).

The task of compiling and analyzing these names for the Naticidae was made easier by the herculean compilation of prosobranch family level names (excluding the Archaeogastropoda) of Ponder and Warén (1988). Although not complete, their list is far more comprehensive than anything previously published. With respect to the Naticidae, I have only found a half-dozen additional relevant names. However, Ponder and Warén did not provide the page numbers or the bibliographic references, which I have included herein (Table 4). They noted (p. 301) that the name Naticidae dated from Forbes (1838), but that "there are two family group names earlier than Naticidae that appear to be valid." That is, they included "Sigaretinae Cuvier, 1817, as Sigaretina" and "Cryptosomidae Gray, 1827." Unfortunately, I was unable to find either name in the works of Cuvier or Gray, and W. Ponder and A. Warén (personal communication) have agreed that they were in error in using those names. There is a "Fam. Sigaretiae" Menke, 1828, which was emended to Sigaretinae by Wiegmann (1832). In any event, the genera upon which these names are based (*i.e.*, *Sigaretus* Lamarck, 1799 and *Cryptostomus* Blainville, 1818) are both junior synonyms of *Sinum* Röding, 1798. Incidentally, there is also a "Sagaretidae" Forbes (1838:29), which is an error for Sigaretidae; however, Forbes's name was based on what are now referred to the

TABLE 4. FAMILY LEVEL NAMES OF THE NATICIDAE.

Naticoidea	Forbes, 1838 (<i>nomen translatum</i> , Philippi, 1853:180 as Naticacea)
= Choristiacea	Verrill, 1882 (<i>n.t.</i> Kuroda, Habe, and Oyama, 1971:93 [62])
= Aspidophora	Fischer, 1884:652, 653
= Gyrodesacea	Wenz, 1941 (<i>n.t.</i> Pchelintsev, 1963: 20, 38)
= Naticiformes	Pchelintsev, 1963:20 (<i>n.t.</i> Naticata; Golikov and Sirenko, 1983:1334)
Naticidae	Forbes, 1838:29
? = Praenaticinae	Cossmann, 1925:98
? = Verenaticinae	Cossmann, 1925:98
Naticinae	Forbes, 1838:29
= Naticina	Macgillivray, 1843:4, 51, 124
Polinicinae	Gray, 1847:149 (<i>n.t.</i> Polinicina; Finlay and Marwick, 1937:53)
= Neveritina	Gray, 1857:48
= Choristidae	Verrill, 1882:540
= Mammillinae	Iredale and McMichael, 1962:57
Sininae	Woodring, 1928:387
= Sigaretinae	Menke, 1828:51 (<i>n.t.</i> Sigaretea; Wiegmann, 1832:540)
= Sagaretidae	Forbes, 1838:29 (error; non-naticid)
= Globisininae	Powell, 1933:168
= Globisiinnae	Oyama, 1969:73*
= Golobisiinnae	Oyama, 1969:73*
= Gloisininae	Oyama, 1969:74*
= Eunicatini	Oyama, 1969:70
= "Sigaretinae	Cuvier, 1817" Ponder and Warén, 1988:301
= "Cryptosomidae	Gray, 1827" Ponder and Warén, 1988:301
Ampullospirinae	Cox, 1930:170
= Euspiridae	Cossmann, 1907:21 (error; not based on <i>Euspira</i> [Polinicinae])
= Ampullininae	Cossmann in Cossmann and Peyrot, 1918:181 (error; based on incorrect type species)
= Gyrodinae	Wenz, 1941:1017
= Globulariinae	Wenz, 1941:1019
= Globulaliinae	Oyama, 1969:72*

* Incorrect subsequent spelling.

Lamellariidae, rather than the naticid genus *Sinum* Röding, 1798. My conclusion is that, in fact, there are no valid family level names prior to the Naticidae Forbes, 1838.

Ponder and Warén (1988:301) included the family level name *Tylostominae* Stoliczka (1868:292). The status of the taxon *Tylostoma* (Cretaceous, Europe) remains uncertain; some species, including the type,

may prove to be neritoidean archaeogastropods. Hence, I have omitted that name from Table 4, pending resolution of this problem. Russian authors have often divided the family Naticidae into several families within the "Order Naticiformes Pchelintsev, 1963"; discussion of these ordinal level names was covered in the preceding historical review.

GENUS LEVEL NAMES

The development of the generic nomenclature of the Naticidae is itself interesting and some details were discussed previously. Here I provide a comprehensive nomenclatural analysis of the genus level taxa. Most of these were described and used in "isolation," without a critical comparison with the other relevant, previously described genera. The result has been a proliferation of names, many of which have never been used subsequently. Correlated with this is the fact that many of the (post-1800) described naticid species were placed in three "common" naticid genera: *Natica*, *Polinices*, and *Sigaretus* [= *Sinum*] (in decreasing frequency). Also, some of the pre-1850 naticid species (especially fossils) were originally referred to the non-naticid genera *Ampullaria*, *Helix*, *Nerita*, and *Turbo*.

My original intention was to produce a fully resolved generic classification of this family. Initially, with perhaps 50 valid names, this task seemed to be straightforward. Over the last few years, this list has been more than doubled with the addition of numerous previously overlooked names. Some of these names are already known to be junior synonyms, homonyms, rejected as *nomina nuda*, or referable to other gastropod families. Yet, there are still many available fossil genera whose status I have not determined. Hence, this list is only a precursor to a full classification. This section will provide a critical basis for a modern understanding of the naticid genera, and will assist with the generic assignments of the species.

To increase the value of this list, I have included numerous annotations with re-

spect to nomenclatural and other problems. For each genus, the type species and the method of designation is presented; synonyms or homonyms are indicated. The geological and geographical occurrence of the type species is included; usually, the genus as a whole encompasses a broader temporal and spatial range. Incidentally, I have also included the aforementioned four non-naticid genera for the reader's convenience. This list is fully cross-referenced. Further research will entail redescriptions of the valid genera and a tabulation of the known species (Recent and fossil) referable to each.

Altogether, 253 genus level names (not counting the aforementioned four non-naticid genera) are listed. Of these, 65 (=26%) are nomenclaturally available and in current usage. However, future research will undoubtedly reveal new synonymies. Additionally, 56 names (=22%), including 21 newly synonymized herein, are junior synonyms. Ten names are junior homonyms (seven since renamed). Fourteen names are *nomina nuda* or occur in rejected works. Fifty-nine names (=23%) are errors or emendations and four names are herein rejected as *nomina dubia*. Finally, 45 names (=18%) are referable to other gastropod families of which 11 are herein newly transferred. A sizable number of these names (64, or 25%) were never recorded in the *Zoological Record* and the various editions of Neave (1939–1940 ff.).

ALPHABETICAL LIST OF THE GENERA OF NATICIDAE

ACILIA Koken, 1896:110. Type species *Acilia aequalis* Koken 1896; subsequent designation Koken, 1897:83. Triassic, Europe. Originally described in the Scalidae; Diener (1926:124) placed this in the Naticidae; Wenz (1939:510) transferred this to the Lacunidae.

ACRYBIA H. and A. Adams, 1853:207. Type species *Natica flava* Gould, 1839; monotypy [= *Natica fragilis* Leach, 1819]. Recent, North Atlantic. Is a junior subjective synonym of *Bulbus* Brown in Smith, 1839 as the type species are both junior synonyms of *N. fragilis*.

ALBULA Röding, 1798:20; *non* Osbeck, 1762 (Pisces). Type species *Nerita mammilla* Linnaeus,

1755; subsequent designation Winckworth, 1945: 137. See *Polinices* Montfort, 1810.

ALCONATICA Vaught, 1989:35. Error for *Aloconatica* Shikama, 1971.

ALOCONATICA Shikama, 1971:28. Type species *Aloconatica kushime* Shikama, 1971; monotypy. Recent, Japan. Herein treated as a junior synonym of *Stigmulaax* Mörch, 1852. Erroneously placed in the Conacea (Neogastropoda) by Vevers, *et al.* (1975: 185).

AMAULOPSIS Kotaka, 1962:134. Error for *Amaulopsis* Mörch, 1857.

AMAURA Möller, 1842:80. Type species *Amaura candida* Möller, 1842; monotypy. Recent, North Atlantic. Non *Amaura* Heubner, 1837 (Lepidoptera). Gray transferred this to the Pyramidellidae and emended the name to *Amoura* Gray (1847: 160). "Amaura de Folin, 1873" Vaught, 1989:62; error for *Amoura* Folin, 1873 (renamed *Folinella* Dall and Bartsch, 1904) (Pyramidellidae). Some subsequently described species placed in this genus may be naticid.

AMAURELLA A. Adams, 1867:311. Type species *Macrocheilus japonicus* A. Adams, 1860; original designation. Recent, Japan. Is a junior synonym of *Microstelma* A. Adams, 1861, *fide* Ponder (1985a: 97). A. Adams had compared *Amaurella* with *Amaura* (*q.v.*); subsequently placed as a subgenus of *Acrybia* [= *Bulbus*] by Thiele (1929:260), see also Wenz (1941:1035).

AMAURELLINA Fischer, 1885 [Jan.]:766; *ex* Bayle MS. Type species *Ampullaria spirata* Lamarck, 1804; monotypy. Eocene, Europe. Synonyms include *Lupia* Conrad, 1865 and *Amauropelta* Chelot, 1885.

AMAUROPOPSIS Bonarelli, 1921:73. Error for *Amauropsis* Mörch, 1857.

AMAUROSELLA Chelot, 1885 [post. Sept.]:202–203; *ex* Bayle MS. Type species *Ampullaria spirata* Lamarck, 1804; original designation. Eocene, Europe. Is a junior objective synonym of *Amaurellina* Fischer, 1885.

AMAUROPSINA Chelot, 1885:203; *ex* Bayle MS. Type species *Ampullaria canaliculata* Lamarck, 1804; original designation. Eocene, Europe. *Amaurospina* Sacco, 1891, error.

AMAUROPSIS Mörch, 1857:81 (9). Type species *Natica helicooides* Johnston, 1835 [= *Nerita islandica* Gmelin, 1791]; subsequent designation Dall, 1909:89. Recent, North Atlantic and Arctic. *Amauropopsis* Bonarelli, 1923; and *Amaulopsis* Kotaka, 1962, errors. Non *Amauropsis* Sharpe, 1894, error for *Anuopsis* Sharpe, 1883 (Aves). Several Antarctic species were referred to this genus by Dell (1990:139–144), who was unable to separate them from the Arctic species at the generic level.

AMAUROPSONA Finlay and Marwick, 1937:56–57. Type species *Nucleopsis major* Marshall, 1917; original designation. Paleocene, New Zealand.

AMAUROSPINA Sacco, 1891:331 (107). Error for *Amauropsina* Chelot, 1885.

AMPLOSTOMA Stoliczka, 1868:312. Type species *Amplostoma auriforme* Stoliczka, 1868; monotypy. Cretaceous, India. Tryon (1886:11) used this as a subgenus of *Sigaretus* [= *Sinum*], and Wenz (1940:880) transferred this to the Fossilidae.

AMPULELLA "Cox" Woodring, 1957:95. Error for *Ampullella* Cox, 1931.

AMPULINA Hanna, 1927:306. Error for *Ampullina* Bowdich, 1822.

AMPULLARIA Lamarck, 1799:76. Type species *Helix ampullacea* Linnaeus, 1758; monotypy. Recent, Europe. A junior objective synonym of *Pila* Röding, 1798. *Ampullaria* is a genus of freshwater prosobranch gastropods and this name was subsequently used by Lamarck (1804:30–34) and J. Sowerby (1819–1846) for fossil naticids. See the discussion under *Globulus* Sowerby, 1835 and *Euspira* Agassiz in J. Sowerby, 1837.

AMPULLELLA Cox, 1931:38. Type species *Ampullaria depressa* Lamarck, 1804; original designation. Eocene, Europe. Is a junior objective synonym of *Ampullina* Bowdich, 1822. Cox had thought that the type species of *Ampullina* was *Natica labellata* Lamarck, 1804. *Ampulella* Woodring, 1957 is a misspelling.

AMPULLINA Bowdich, 1822 (Feb.):31. No originally included species; figure was unidentified. The first subsequently included species was *Ampullaria depressa*, Lamarck, 1804 by Sowerby in Dixon, 1850:98, and is the type species [ICZN Article 69(a)(i)(1)]. Eocene, Europe. Cossmann (1888:170; 1925:18) incorrectly stated that the type was *Ampullaria sigaretina* Lamarck, 1804. As Dall (1909: 89) and Stewart (1927:330) have indicated, Bowdich's figure is of *depressa*, not *sigaretina*. Cox (1930:170; 1931:38) thought that the figure was of *Natica labellata* Lamarck, 1804. Sowerby in Dixon (1850:178–179) explicitly differentiated between *Natica*, *Ampullina*, and *Globularia*. *Ampullella* Cox, 1930 is a synonym. "Ampulline Lam." of Debrance, 1821 and "Ampullina Lam." of Féruccac, 1822 and of Deshayes, 1830 are *nomina nuda*. *Ampulina* Hanna, 1927 is an error for *Ampullina* Bowdich, 1822. *Ampullina* Blainville, 1824 is *Eutrochatella* Fischer, 1885 (Helicinidae). *Ampullina* Guppy, 1895 is *Oxyrhombus* Crosse and Fischer, 1893 (Helicinidae); see Clench and Jacobson (1966: 71, 1968:9).

AMPULLINA "Lamarck" Féruccac, 1822 (13 April): xxxiv. *Nomen nudum*; published in synonymy of *Natica* (Kennard, 1942b:112). Non *Ampullina* Bowdich, 1822. Stewart (1927:330) mistakenly listed

ed this name as being published in February 1822, on page xxiv [sic] of Féruccac, and chose Bowdich's name as having priority. However, page xxxiv of Féruccac was not published until April 13, 1822 (Kennard, 1942a:106).

AMPULLINA "Lamarck" Deshayes, 1830:36. *Nomen nudum*; see *Ampullina* Bowdich, 1822.

AMPULLINE "Lamarck" Defrance, 1821:446. Used in the vernacular; *nomen nudum*. See *Ampullina* Bowdich, 1822.

AMPULLINOPSIS Conrad, 1865:27. Type species *Natica mississippiensis* Conrad, 1847; monotypy. Tertiary, S.E. United States. *Megatylotus* Fischer, 1885 is a synonym *fide* Wenz (1941:1020), the type species may also be synonyms. *Hahazimania* Yabe and Hatai, 1939 is probably also a synonym (MacNeil, 1984:96–97).

AMPULLONATICA Sacco, 1890b:40. Type species *Ampullaria ambulacrum* Sowerby, 1822; subsequent designation Cossmann, 1893:740. Tertiary, Europe. Also listed in Sacco, 1890a:208 (315), but with a nude name as the sole species [*Ampullonatica repressa* "Rov."]; species later validated by Sacco (1890b:40)]. Proposed as a subgenus of *Sigaretus* Lamarck, 1799 [= *Sinum* Röding, 1798]. Herein treated as a junior subjective synonym of *Euspira* Agassiz in Sowerby, 1837.

AMPULLOOSPIRA "Harris" Akopyan, 1976:245. Error for *Ampullospira* Harris, 1897.

AMPULLOPSIS Repelin, 1902. Type species *Ampullaria faujasi* "de Serres, 1875" [= *Ampullaria faujasti* Bronn, 1848; based on figures in Faujas, 1809]; monotypy. Upper Cretaceous, France. The illustrations are of an indeterminate shell with very tabulate whorls and an oddly compressed aperture that might belong to the Ampullospirinae. However, it is herein treated as *nomen dubium*.

AMPULLOSPIRA Harris, 1897:265. Type species *Euspira canaliculata* Morris and Lycett, 1854; original designation. Tertiary, Europe. Proposed as a subgenus of *Euspira* Agassiz in Sowerby, 1837 for the *Euspira* sensu Cossmann (1888:173). Harris (1897:266) also referred *Ampullina* (*Euspira*) *ef-fusa* Tate, 1893 to *Ampullospira*; however, Tate's species is non-naticid, with a high spire, a flaring outer lip, and an everted columellar lip. Wenz (1941:1020) erroneously listed *Ampullospira* as a synonym of *Pseudamaura* Fischer, 1885 (q.v.). *Ampullospira* Hanna, 1927 and *Ampullospira* Akopyan, 1976, errors.

AMPULOSPIRA Hanna, 1927:306. Error for *Ampullospira* Harris, 1897.

ANOMPHALA "Jonas" Herrmannsen, 1846:61. Type species *Natica fluctuata* G. B. Sowerby, 1825; original designation. Recent, Indo-Pacific. Is a junior objective synonym of *Cernina* Gray, 1842. Compare *Globularia* Swainson, 1840.

AUSTROCOCHLIS Finlay and Marwick, 1937:51. Type species *Natica substolidula* Tate, 1893; original designation. Oligocene, Australia.

BANIS Stephenson, 1941:279. Type species *Banis siniformis* Stephenson, 1941; original designation. Upper Cretaceous, Texas, U.S.A. Of uncertain status; possibly a synonym of *Gyrodes* Conrad, 1860 (q.v.).

BENSONIA Gray, 1847:150; ex Cantor MS. Published in synonymy of *Laguncula* Benson, 1842. *Bensonia* Pfieffer, 1855 was renamed *Bensonies* Baker, 1938 (Pulmonata: Ariophantidae) and *Bensonia* Malaise, 1935 was renamed *Bensoniana* Malaise, 1942 (Hymenoptera). See *Euspira* Agassiz in J. Sowerby, 1837.

BILLIEMIA Gregorio, 1930:14. Type species *Natica diblasii* Gemmellaro, 1869; original designation. Triassic, Italy. Proposed as a subgenus of *Natica* Scopoli, 1777. Herein rejected as a *nomen dubium* as the illustrations are indeterminate.

BOREONATICA Golikov and Kusakin, 1974:294. Type species *Natica clausa* Broderip and Sowerby, 1829; original designation. Recent, circumboreal. A junior subjective synonym of *Cryptonatica* Dall, 1892 (*fide* Golikov and Kusakin, 1978:153, who thought that *clausa* was the type species of *Cryptonatica*).

BULBOSOIDES Pan, 1982:101, 109. Type species *Bulbosoides glomus* Pan, 1982; original designation. Jurassic, China. Proposed as a subgenus of *Bulbus* Brown in Smith, 1839.

BULBUS Brown in Smith, 1839:94, 103. Type species *Bulbus smithii* Brown in Smith, 1839; monotypy [= *Natica fragilis* Leach, 1819]. Recent, North Atlantic. *Acrybia* H. and A. Adams, 1853 is a synonym. *Non Bulbus* "Humphr." Herrmannsen, 1846:135 (*ibid.*, 1847:388, 1852:20, 117) = *Rapa* Röding, 1798 (Coralliophilidae). See Dell (1990:153–159) for further discussion of the possible relationships of this genus and the Antarctic species referable to *Bulbus*.

CALINATICINA Burch and Campbell, 1963:221. Type species *Sigaretus oldroydii* Dall, 1897; original designation. Recent, eastern Pacific.

CARINACCA Marwick, 1924:553. Type species *Ampullina waihaoensis* Suter, 1917; original designation. Eocene, New Zealand.

CATINUS Blainville, 1827:105; of "Lamarck, Klein and Martini." *Nomen nudum*. *Non Catinus Fabricius*, 1823 (rejected work; name referable to the Velutinidae). See also *Catinus* Oken, 1835 and *Catinus* H. and A. Adams, 1853. Is a junior subjective synonym of *Sinum* Röding, 1798.

CATINUS Oken, 1835:538. *Nomen nudum*; *non Fabricius*, 1823. Is a junior subjective synonym of

Sinum Röding, 1798. See also *Catinus* H. and A. Adams, 1853.

CATINUS H. and A. Adams, 1853:212; *ex Klein, non Fabricius*, 1823. Type species not designated: 25 species listed, all referable to *Sinum*. Is a junior subjective synonym of *Sinum* Röding, 1798.

CEPATIA Gray, 1840:151. In list; *nomen nudum*. See *Cepatia* Gray, 1842.

CEPATIA Gray, 1842:60. Type species *Natica cepacea* Lamarck, 1804; subsequent designation Gray, 1847:149. Eocene, Europe. *Velainia* Munier-Chalmas, 1884 and *Pseudocepatia* Magne and Vergneau-Saubade, 1973 are synonyms, and *Pitonillus* Féruissac, 1822 is an error and is not a senior synonym.

CERNINA Gray, 1840:151. In list; *nomen nudum*. See *Cernina* Gray, 1842.

CERNINA Gray, 1842:60. Type species *Natica fluctuata* G. B. Sowerby, 1825; subsequent designation Gray, 1847:150. Recent, Indo-Pacific. Is not naticid; Kase (1990:565) transferred the type species to the Architaenioglossa, of unknown superfamilial placement. However, Kase erroneously used "*Globularia*" for *Natica fluctuata* and was unjustified in concluding that the entire Ampullospirinae was to be removed from the Naticidae. *Anomphala* Herrmannsen, 1846 is a junior objective synonym. *Cervina* Gray, 1857 is a misspelling. Compare with *Globularia* Swainson, 1840.

CERVINA Gray, 1857: vii, 50. Error for *Cernina* Gray, 1842.

CHILOCYCLUS Brönn in Brönn and Roemer, 1851: 75. Type species *Cochlearia carinata* Münster, 1841; monotypy. Triassic, Europe. No family originally indicated; Diener (1926:127) placed this in the Naticidae; Wenz (1940:752) transferred this to the Diastomidae. *Non Chilocyclus* Gill, 1863 (Gastropoda: Pomatiopsidae).

CHORISTES Carpenter in Dawson, 1872:392. Type species *Choristes elegans* Carpenter in Dawson, 1872; monotypy. Pleistocene, eastern Canada. Has often been placed in the Rissoacea as a separate family Choristidae (e.g., Thiele, 1929:179 and Wenz, 1941:649–650). However, Golikov and Starobogatov (1975:212, 220) and Marinovich (1977:338) transferred this genus to the Naticidae. This confusion was clarified by Kabat (1989), especially with regard to the family name Choristidae.

CIGARETUS Hall, 1859:98. Error for *Sigaretus* Lamarck, 1799.

COCHLIS Röding, 1798:146. Type species *Cochlis flammula* Röding, 1798 [= *Natica vittata* (Gmelin, 1791)]; subsequent designation Hedley, 1916:51. Recent, eastern Atlantic. The later designation of *Cochlis albula* Röding, 1798 [= *Natica vitellus* (Linnaeus, 1758)] as type species, by Iredale (1924:254),

resulted in the erroneous conclusion (e.g., Černohorský, 1971:173) that *Cochlis* was a junior subjective synonym of *Natica* Scopoli, 1777. However, the earlier, overlooked designation of Hedley established *Cochlis* as a distinct genus (Oyama, 1985: 20).

CONUBER Finlay and Marwick, 1937:53. Type species *Natica conica* Lamarck, 1822; original designation. Recent, Australia. Proposed as a subgenus of *Polinices* Montfort, 1810.

CORONATICA Blanckenhorn, 1927:134. Type species *Neritopsis ornata* Fraas, 1878; subsequent designation Wenz, 1941:530. Cretaceous, Syria. Probably not naticid: Wenz placed this in the Purpurinidae.

CROMMIUM Cossmann, 1888:173 [177]. Type species *Ampullaria willemeti* Deshayes, 1825; original designation. Eocene, Europe. Palmer (1937:135) listed *Lupia* Conrad, 1865 as a synonym of *Crommium*.

CRYOTONATICA Oyama, 1969:70. Error for *Cryptonatica* Dall, 1892.

CRYPTONATICA Dall, 1892:362. Type species *Natica (Cryptonatica) floridana* Dall, 1892; subsequent designation Cossmann, 1896:238. Tertiary, S.E. United States. Proposed as a subgenus of *Natica* Scopoli, 1777. The designation of *Natica clausa* Broderip and Sowerby, 1829 as the type species came later and is not available (Dall, 1909:85; see Petit, 1986:38). *Boreonatica* and *Sulconatica* both of Golikov and Kusakin, 1974 are synonyms. *Cryptonatica* Dall, 1921; *Cryptonica* Cossmann, 1925 and *Crytonatica* Oyama, 1969 are errors. *Cryptonatica* Cossmann (1925:184, 301) is an error for *Cryptonerita* Kittl, 1894.

CRYPTONICA Cossmann, 1925:121. Error for *Cryptonatica* Dall, 1892.

CRYPTOSTOMUS Blainville, 1818a:120. Type species not designated; two species listed in original: *C. leachii* and *C. breviculus*, both of Blainville, 1818. Is a junior subjective synonym of *Sinum* Röding, 1798. *Cryptostoma* Blainville (1818b:126) is a variant spelling. Wenz (1941:1038) incorrectly attributed *Cryptostomus* to Rang, 1829; however, Rang (1829:237) referred to Blainville.

CRYTONATICA Dall, 1921:163. Error for *Cryptonatica* Dall, 1892.

DALLITESTA Mansfield, 1930:124. Type species "Neverita coensis" Dall, 1903" [= *Polinices (Dallitestra) coensis* Mansfield, 1930]; original designation. Miocene, Florida, U.S.A. Herein treated as junior subjective synonym of *Euspira* Agassiz in Sowerby, 1837.

DESHAYESIA Raulin, 1844:1. Type species *Deshayesia parisiensis* Raulin, 1844; monotypy. Eocene, Europe. The figure shows columellar teeth

and this genus is herein referred to the Neritoidea. However, Wenz (1941:1023) used *Deshayesia* as a subgenus of *Globularia* Swainson, 1840 and stated that it is the proper name for *Naticella* Grateloup, 1847 non Swainson, 1840. Beets (1948) provided further discussion and a comparison with *Pisulina* Nevill and Nevill, 1869 (Neritidae).

ECTOSINUM Iredale, 1931:216–217. Type species *Ectosinum pauloconvexum* Iredale, 1931; original designation. Recent, Australia. A junior subjective synonym of *Sinum* Röding, 1798.

ELACHISINA Dall, 1918:137. Type species *Elachisina grippi* Dall, 1918; monotypy. Recent, eastern Pacific. Although Wenz (1941:1028) considered this to be naticid, it is a rissoidean (Coan, 1964; Ponder, 1985b).

EOCERNINA Gardner and Bowles, 1934:243. Type species *Natica hannibali* Dickerson, 1914; original designation. Eocene, Oregon–California, U.S.A. Proposed as a subgenus of *Cernina* Gray, 1842. As a full genus, discussed by Marinovich (1977:228–231).

EUCARYORUM Ehrenberg, 1831:46. Type species *Nerita mammilla* Linnaeus, 1758; monotypy. Also spelled as *Eucaryum* by the author. A junior subjective synonym of *Polinices* Montfort, 1810.

EUNATICA Melvill, 1899:92. Species mentioned: *Natica ponsonbyi* Melvill, 1899 and *Natica spadicea* (Gmelin, 1791) [= *Natica vitellus* (Linnaeus, 1758)]. *Natica spadicea* is herein designated as the type species, thus rendering *Eunatica* a junior objective synonym of *Natica* Scopoli, 1777.

EUNATICA Habe and Ito, 1965:30 (also in Okutani, 1968:29–30). Error for *Euspira* Agassiz in J. Sowerby, 1837 (not used in the context of *Eunaticina* Fischer, 1885). A junior homonym but not a synonym of *Eunatica* Melvill, 1899.

EUNATICINA Fischer, 1885:768. Type species *Nerita papilla* Gmelin, 1791; monotypy (of *Naticina* Gray, 1847). Recent, Indo-Pacific. A replacement name for *Naticina* Gray, 1847 non Guilding, 1834. *Sigaretotrema* Sacco, 1890, *Propesinum* Iredale, 1924, and *Pervisinum* Iredale, 1931 are all junior subjective synonyms.

EUSPIRA Agassiz in J. Sowerby, 1837a,b:14. Type species *Natica glaucoinoides* J. Sowerby, 1812 (non Deshayes, 1832) [? = *Natica labellata* Lamarck, 1804]; subsequent designation Bucquoy, Dautzenberg, and Dollfus, 1883:143. Eocene, Europe. Cox (1930:168) stated that *glaucinoides* was a synonym of *labellata*, whereas Wrigley (1949:16) maintained that they were separate species. The designation of *Ampullaria sigaretina* Lamarck, 1804 (Gabb, 1877: 278 and Harris, 1897:265) is not valid, as that species was not listed under *Euspira* by Agassiz until 1842; however, *sigaretina* is the type of *Globularia* (q.v.). Similarly, Cossmann (1888:173) listed the type

as *Euspira canaliculata* Morris and Lycett, 1854, but this taxon is obviously not available, either. See *Ampullospira* Harris, 1897 for the *Euspira* sensu Cossmann. Synonyms include *Laguncula* Benson, 1842, *Bensonia* Gray, 1847, *Lunatia* Gray, 1847 (as determined by Stoliczka, 1868:296), *Ampullonatica* Sacco, 1890, *Labellinacca* Cossmann, 1918 (based on *labellata* Lamarck), *Dallitestra* Mansfield, 1930, *Scarlatia* Schileyko, 1977, and *Pseudopolinices* Golikov and Sirenko, 1983. *Eunatica* Habe and Ito, 1965 is an error. *Euspira* was proposed for some of the same species that were listed under *Globulus* J. de C. Sowerby, 1835. Apparently Agassiz was unaware of that name for the fossil marine species formerly referred (by J. Sowerby) to *Ampullaria* Lamarck, 1799 (freshwater gastropod). Compare with *Globularia* Swainson, 1840. The species listed in 1837 for *Euspira* were *glaucinoides* and *depressa*; the species listed in 1842 were *acuta*, *patula*, *sigaretina*, *ambulacrum*, *conicus*, *rotundatus*, and *nobilis*. See Cleevely (1974:452–453) on Agassiz's French and German translations of Sowerby's *Mineral Conchology*. Melvill (1897:470) attributed *Euspira* to "Desor and Agassiz, 1837"; however, Desor was merely the translator while Agassiz was the author of the footnote containing this new name.

EUSPIROCROMMIUM Sacco, 1890a:208 (315). Type species *Natica elongata* Michelotti, 1861 non Hoeninghaus, 1829 [= *Crommium* (*Euspirocromium*) *degensis* Sacco, 1890b]; monotypy. Tertiary, Europe. As a subgenus of *Crommium* Cossmann, 1888, by Sacco (1890b:41–42). Cox (1930: 173–174) attempted to clarify Cossmann's (1893: 741) confusion with respect to this taxon; however, Cox's conclusions were based on a single specimen which is not confamilial with the type species. Herein referred to the Phasianellidae (Archaeogastropoda).

FALSILUNATIA Powell, 1951:119. Type species *Natica soluta* Gould, 1848; original designation. Recent, sub-Antarctic. Dell (1990:145–153) redescribed the genus and reviewed its numerous antitoreal species.

FORATOR Taylor, Cleevely, and Morris, 1983:524, 526 [figure 2A], 553. One species mentioned "*Forator parkinsoni* Morris and Cleevely." Cretaceous, England. Genus and species are *nomina nuda*.

FRIGIDILACUNA Tomlin, 1930:23. Replacement name for *Sublacuna* Thiele, 1912 non Cossmann, 1899. Is a junior objective synonym of *Prolacuna* Thiele, 1913 (q.v.).

FRIGINATICA Hedley, 1916:51. Type species *Natica beddomei* Johnston, 1884; original designation [= *N. effosa* Watson, 1886; = (?) *N. polita* Tenison-Woods, 1875]. Recent, S. Australia. *Sulconacca* Marwick, 1924 is a junior subjective synonym.

FROVINA Thiele, 1912:196–197. Type species *Frovina soror* Thiele, 1912; monotypy. Recent, Antarctica.

GENNAEOSINUM Iredale, 1929:279–280. Type species *Gennaeosinum peleum* Iredale, 1929; original designation. Recent, Australia. The type species and several other congeneric Indo-Pacific species were illustrated and redescribed by Kilburn (1988) and Loch (1988). Herein treated as a junior subjective synonym of *Sigatica* Meyer and Aldrich, 1886.

GLAUSOLOX Maeda, 1988:123. Error for *Glossaulax* Pilsbry, 1929.

GLAUSSOLAX Maeda, 1988:123. Error for *Glossaulax* Pilsbry, 1929.

GLOBISINUM Marwick, 1924:573. Type species *Sigaretus drewi* Murdoch, 1899; original designation. Cenozoic, New Zealand. Dell (1956:42–46) provided extensive discussion of this genus and its potential relationships with *Acrybia* [= *Bulbus*]. *Globisium* Zinsmeister and Camacho, 1982:302, error.

GLOBISIUM Zinsmeister and Camacho, 1982:302. Error for *Globisimum* Marwick, 1924.

GLOBULARIA Swainson, 1840:345. Type species *Ampullaria sigaretina* Lamarck, 1804; subsequent designation Herrmannsen, 1847 [April 18]: 480. Eocene, Europe. *Globularia* was a replacement name for *Globulus* J. de C. Sowerby, 1835, *non* Schumacher 1817 (Trocidae). The designation (Gray, 1847 [post Nov. 9]:150) of *Natica fluctuata* G. B. Sowerby, 1825 (as the type species) not only came later but also is invalid as it was not an originally included species; see *Cernina* Gray, 1842. Compare with *Euspira* Agassiz in J. Sowerby, 1837. *Gobularia* Stewart, 1927 is a misspelling. Kase (1990: 565) erroneously placed *Natica fluctuata* (which he proved was not a naticid) in *Globularia*.

GLOBULUS J. de C. Sowerby, 1835:246; *non* Schumacher, 1817 (Trocidae). No type species designated; see the discussion under *Euspira* Agassiz in J. Sowerby, 1837 and *Globularia* Swainson, 1840. *Globulus* was a new generic name for the marine species formerly referred to *Ampullaria* Lamarck, 1799 (a freshwater gastropod genus). The species listed for *Globulus* were *depressus*, *acuta*, *patula*, *sigaretina*, *ambulacrum*, *nobilis*, and *helicoides*.

GLOSSAULAX Pilsbry, 1929:113. Type species *Natica reclusiana* Deshayes, 1839; original designation. Recent, eastern Pacific. *Golossaulex* Oyama, 1969; *Grossaulax* Oliveira, Rezende, and de Castro, 1981; *Glausolox* and *Glaussolax*, both Maeda, 1988, errors.

GLYPHEPITHEMA Rehder, 1943:196. Type species *Natica idiopoma* Pilsbry and Lowe, 1932; original designation. Recent, eastern Pacific.

GLYPTANATICA Gardner, 1947:555–556. Type species *Sigatica euglypta* Gardner, 1947; original

designation. Tertiary, Florida, U.S.A. Proposed as a subgenus of *Sigatica* Meyer and Aldrich, 1886. Herein treated as a junior subjective synonym of *Sigatica* Meyer and Aldrich, 1886.

GOBULARIA Stewart, 1927:330. Error for *Gobularia* Swainson, 1840.

GOLOSSAULAX Oyama, 1969:70. Error for *Glossaulax* Pilsbry, 1929.

GREGGSIA Cossmann, 1925:13, 47. Type species *Natica alabamensis* Whitfield, 1865; original designation. Eocene, S.E. United States. Proposed as a subgenus of *Crommium* Cossmann, 1888. Is a junior objective synonym of *Lacunaria* Conrad, 1866.

GROSSAULAX Oliveira, Rezende, and de Castro, 1981:125. Error for *Glossaulax* Pilsbry, 1929.

GYRODES Conrad, 1860:289. Type species *Natica* (*Gyrodes*) *crenata* Conrad, 1860 (*non* *Natica crenata* Zekeli, 1852 *nec* Récluz, 1853); subsequent designation Gardner, 1916:496. The subsequent designation of Meek (1876:309) is not valid as Meek listed *crenata* as an “example” (*contra* Stewart, 1927:329). According to Stephenson (1923:357, 1941: 279) and Gardner (1945:169), the type species is a junior synonym of *Rapa supraplicata* Conrad, 1858. Cretaceous, S.E. United States. Proposed as a subgenus of *Natica* Scopoli, 1777. Compare with *Banis* Stephenson, 1941 and *Sohrella* Popenoe, Saul, and Susuki, 1987.

GYRODISCA Dall, 1896:44. Type species *Fossarus depressus* Seguenza, 1874; original designation [Dall cited this as “*Adeorbis depressus* Jeffreys”]. Cenozoic, Europe. Proposed as a subgenus of *Gyrodes* Conrad, 1860. Is not naticid. Dall (1903:1633) synonymized this with *Macromphalina* Cossmann, 1888; Warén and Bouchet (1988:85) synonymized *Gyrodisca* with *Megalomphalus* Brusina, 1871 (Vanikoridae).

HAHAZIMANIA Yabe and Hatai, 1939:209. Type species *Hahazimania hahazimensis* Yabe and Hatai, 1939; original designation. Tertiary, Japan. A junior subjective synonym of *Ampullinopsis* Conrad, 1865 *fide* MacNeil (1984:97).

HALIOTINELLA Souverbie in Souverbie and Montrouzier, 1875:33. Type, *Haliotinella montrouzieri* Souverbie, 1875; monotypy. Recent, Indo-Pacific.

HELICONATICA Dall, 1924:90. Type species *Eunaticina* (*Heliconatica*) *margaritaformis* Dall, 1924; original designation. Recent, Hawaii. Proposed as a subgenus of *Eunaticina* Fischer, 1885. Herein treated as a junior subjective synonym of *Sigatica* Meyer and Aldrich, 1886.

HELGMOPE Tate, 1893:328–329. Type species *Heligmope dennanti* Tate, 1893; monotypy. Tertiary, Australia. Is not naticid, possibly is a juvenile Trochoidea, although Wenz (1941:1036–1037) placed this as a subgenus of *Bulbus* Brown in Smith, 1839.

HELIX Linnaeus, 1758:768. Type species *Helix pomatia* Linnaeus, 1758; subsequent designation Montfort, 1810:231. Recent, Europe. A genus of land snails which was used for a number of pre-1850 naticid species. *Non Helix* Féruccac, 1821:23.

HYPTERITA Woodring, 1957:92. Type species *Natica helicoides* Gray, 1825; original designation. Recent, eastern Pacific. Proposed as a subgenus of *Neverita* Riss, 1826.

ISONEMA Meek and Worthen, 1865:251–252. Type species *Isonema depressum* Meek and Worthen, 1865; monotypy. Proposed as a subgenus of *Holopea* Hall, 1847. Devonian, Ohio, U.S.A. Tryon (1886:8) placed this in the Naticidae but it is now referred to the Anomphalidae (Archaeogastropoda) (Knight, 1941:160–161; Knight, Batten, and Yochelson, 1960:1244, fig. 156.6).

KERGUELENATICA Powell, 1951:117. Type species *Natica grisea* Martens, 1878 (*non* Requin, 1848); original designation. Recent, sub-Antarctic. Proposed as a subgenus of *Amauropsis* Mørch, 1857. As the type species is a junior homonym, it was renamed *Kerguelenatica bioperculata* Dell, 1990 (pp. 144–145).

KITTLIA Cossmann, 1909:8. Replacement name for *Ptychostoma* Laube, 1866; *non* *Ptychostomus* Agassiz, 1855 (Pisces). Triassic, Europe. Wenz (1939: 527) referred this to the Purpurinidae.

LABELLINACCA Cossmann in Cossmann and Peyrot, 1918:188. Type species *Natica labellata* Lamarck, 1804; monotypy. Tertiary, Europe. See also Cossmann, 1919:193. Is a junior objective synonym of *Euspira* Agassiz in Sowerby, 1837.

LACUNARIA Conrad, 1866:77. Type species *Natica alabamiensis* Whitfield, 1865; subsequent designation Cossmann, 1888:127. Eocene, S.E. United States. Tryon (1886:10) erroneously placed this genus in the Lacunidae. *Greggsia* Cossmann, 1925 is a junior objective synonym. *Lacunella* Dall, 1884 *non* Deshayes, 1864 was renamed *Lacunaria* Dall, 1885 *non* Conrad, 1866 and renamed again *Haloconcha* Dall, 1886 (Littorinidae).

LAGUNCULA Benson, 1842:488. Type species *Laguncula pulchella* Benson, 1842; monotypy. Recent, China ("said to inhabit canals"). Original description did not indicate familial placement. Gray (1847:150) and Philippi (1853:182) referred this to the Naticidae. Pease (1869:164) placed this in the Assimineidae. Thiele (1929:115) and Wenz (1941: 495) provisionally assigned this to the Viviparidae. Yen (1942:211, pl. 16, fig. 95) illustrated the type specimen and transferred this back to the Naticidae. The species appears to be a senior synonym of *Natica gilva* Philippi, 1842 [= *Natica fortunei* Reeve, 1855], which is now referred to *Euspira* [= *Lunatia*]. Herein treated as a junior subjective synonym of *Euspira* Agassiz in J. Sowerby, 1837. *Bensonia* Gray, 1847, *Lunatia* Gray, 1847, and

Scarlatia Schileyko, 1977 are equivalent to *Laguncula*.

LOBOSTOMA Cossmann, 1885:147, *non* Berthold in Latreille, 1827 (Cestoidea); *nec* Rafinesque, 1831 (fossil Anthozoa); *nec* Gundlach, 1840 (Chiroptera); *nec* Amyot and Serville, 1843 (Hemiptera); *nec* Fairmaire, 1892 (Coleoptera). Type species not designated (eight species included); see *Naricopsina* Chelot, 1886.

LUNAIA Berry, 1964:148. Type species *Lunaia lunaris* Berry, 1964; original designation. Recent, eastern Pacific.

LUNATIA Gray, 1847:149. Type species *Natica ampullaria* Lamarck, 1822; original designation. Tertiary, Europe. *Lunatica* Tiba, 1985 *non* Röding, 1798 (Trochidae) is a *lapsus calami*. *Lunatia* is a junior subjective synonym of *Euspira*, as noted by Stoliczka (1868:296), Dall (1908:334, 1909:87) and Marinovich (1977:264). See also *Laguncula* Benson, 1842.

LUNATICA Tiba, 1985:19, *non* Röding, 1798 (Trochidae). Error for *Lunatia* Gray, 1847; corrected by Tiba, 1986:79.

LUPIA Conrad, 1865:27, *non* Robineau-Desvoidy, 1863 (Diptera). Type species *Ampullaria perovata* Conrad, 1846; monotypy. Tertiary, S.E. United States. Palmer (1937:135) placed this as a synonym of *Crommium* Cossmann, 1888, while Wenz (1941: 1026) considered this a synonym of *Amaurellina* Fischer, 1885.

MAGNATICA Marwick, 1924:553. Type species *Polinices planispirus* Suter, 1917 *non* Philipps, 1836 [renamed *Natica suteri* Marwick, 1924]; original designation. Tertiary, New Zealand.

MAMILLA Fabricius, 1823:98, 99. Type species not indicated; 23 species listed. No description provided. This work was rejected by the ICZN [Opinion 521, 1958]; hence, *Mamilla* is not available although the species included were naticids (see Herrmannsen, 1852:80). *Non Mamilla* Menke, 1830 (*q.v.*), *nec* *Mamilla* Wagner, 1907 (renamed *Weinlandella* Baker, 1954 [Gastropoda: Helicinidae]), *nec* *Mamilla* Scott, 1974 (renamed *Jascottella* Hiddleston and Haman, 1982 [Foraminifera]).

MAMILLA "Schumacher" Menke, 1830:47. Error for *Mammilla* Schumacher, 1817. *Non Mamilla* Fabricius, 1823. This error was repeated by Agassiz (1848:644) and Wenz (1941:1030), *inter alia*.

MAMILLARIA Swainson, 1840:345. Type species *Mamillaria lactea* Swainson, 1840 [= *Nerita peselephantis* Link, 1807]; subsequent designation Hedley, 1924:154. Recent, Indo-Pacific. Is a junior subjective synonym of *Neverita* Riss, 1826, *fide* Cernohorsky (1971:195) and Kilburn (1976:857); although Thiele (1929:261) and Wenz (1941:1028) listed this as a synonym of *Polinices* Montfort, 1810. *Mammillaria* (*e.g.*, Herrmannsen, 1847:17; Thiele,

1929:261, 1931:761; and Wenz, 1941:1028, 1944:1618) is a misspelling.

MAMMA Blainville, 1823:475; *ex* Klein. *Nomen nudum*; compare with *Mamma* Mörcz, 1852. Is a synonym of *Polinices* Montfort, 1810.

MAMMA Mörcz, 1852:132; *ex* Klein. Published in synonymy of *Polinices* Montfort, 1810. Wenz (1941:1030), in error, listed *Mamma* as a synonym of *Mammilla* Schumacher, 1817; however, Wenz was referring to Mörcz's citation (also on page 132) of "*Mamma mulieris indicae* Chemnitz" (a name from an invalid work) under *Mammilla* Schumacher, 1817.

MAMMILLA Schumacher, 1817:58, 190. Type species *Mamimilla fasciata* Schumacher, 1817; monotypy [= *Albula mammata* Röding, 1798]. Recent, Indo-Pacific. Synonyms include *Mamilla* Menke, 1830, *Naticaria* Swainson, 1840, *Ruma* Gray, 1847 and H. and A. Adams, 1853, and *Sigaretopsis* Cossmann, 1888.

MAMMILLARIA "Swainson" Herrmannsen, 1847:17 (also, Thiele, 1929:261, 1931:761; and Wenz, 1941:1028, 1944:1618). Error for *Mamillaria* Swainson, 1840.

MEGATYLOTUS Fischer, 1885:766. Type species *Ampullaria crassatina* Lamarck, 1804; monotypy. Miocene, Europe. See also Cossmann, 1919:195-196. Is a junior subjective synonym of *Ampullinopsis* Conrad, 1865, *fide* Wenz (1941:1020); MacNeil (1984:97) suggested that the type species may be synonyms.

NACCA Risso, 1826:148. Type species *Nerita fulminea* Gmelin, 1791; subsequent designation Herrmannsen, 1847:89. Recent, S.E. Atlantic. Is a junior subjective synonym of *Natica* Scopoli, 1777.

NANGGULANIA Martin, 1914:174. Type species *Nanggulania puruensis* Martin, 1914; monotypy. Eocene, Java. Not naticid; possibly in the Neritoidea. Cossmann (1925:30-32) considered this to be a synonym of *Deshayesia* Raulin, 1844. *Nanggulania* Neave, 1940, error.

NANGGULLANIA Neave, 1940:261. Error for *Nanggulania* Martin, 1914.

NARICARIUS "Duméril, 1895" Macpherson and Gabriel, 1962:138. Error for *Naticarius* Duméril, 1806.

NARICOPSINA Chelot, 1886:9. Replacement name for *Lobostoma* Cossmann, 1885 *non* Berthold in Latreille, 1827 (*et al.*). Type species *Neritopsis guerangeri* Cossmann, 1885; subsequent designation Chelot, 1886:9. Jurassic, Europe.

NATELLA Palmer, 1937:112, *non* Watson, 1934 (Pulmonata: Paryphantidae). Type species *Natica magnoumbilicata* Lea, 1833; original designation. Eocene, Alabama, U.S.A. Proposed as a section of

Natica (*Naticarius*). Renamed *Tella* Palmer, 1942 (*q.v.*).

NATICA Scopoli, 1777:392. Type species *Nerita vitellus* Linnaeus, 1758; subsequent designation Anton, 1838:31. Recent, Indo-Pacific. *Nerita canrena* Linnaeus, 1758 is not available as the type since it was not mentioned by Scopoli (*contra* Lamarck, 1799:77; Cossmann, 1888:159; Dall, 1892:362; *et al.*). Synonyms include *Ampullina* Féussac, 1822 *non* Bowdich, 1822, *Mamilla* Fabricius, 1823, *Nacula* Risso, 1826, *Payraudeautia* Bucquoy, Dautzenberg, and Dollfus, 1883.

NATICA Lamarck, 1799:77. Type species *Nerita canrena* Linnaeus, 1758; monotypy. A junior homonym but not a synonym of *Natica* Scopoli, 1777; is equivalent to *Naticarius* Duméril, 1806. Dodge (1947:67) differentiated between Scopoli's and Lamarck's use of Adanson's (pre-Linnaean) "Natica."

NATICA Risso, 1826:147. Type species never selected; three included species: *Nerita glauicina* Linnaeus, 1758 (*a nomen dubium*), *Natica marmorata*, and *N. pulchella*, both Risso, 1826 (referable to *Euspira*). A junior homonym but not a synonym of *Natica* Scopoli, 1777.

NATICARIA Swainson, 1840:346. Type species "N. melanostoma Martini" Swainson, 1840 [= *Nerita melanostoma* Gmelin, 1791]; subsequent designation Hedley, 1924:154. Recent, Indo-Pacific. Is a junior subjective synonym of *Mammilla* Schumacher, 1817.

NATICARINUS Noda, 1980:16. Error for *Naticarius* Duméril, 1806.

NATICARIUS Duméril, 1806:164. Type species *Nerita canrena* Linnaeus, 1758; subsequent designation Froriep, 1806:165. Recent, western Atlantic. *Naticus* Montfort 1810, *Quantonatica* Iredale, 1936, and *Tella* Palmer, 1942 are synonyms. *Naricarius* Macpherson and Gabriel, 1962 and *Naticarinus* Noda, 1980 are misspellings. See Iredale (1916) on Froriep's German edition of Duméril's work. Kabat (1990:12-14) further discussed the problems with this generic name.

NATICE Dall, 1892:371. Error for *Natica* Scopoli, 1777.

NATICELLA Swainson, 1840:345; *ex* Guilding MS. Type species "N. aurantia Martini" Swainson, 1840 [= *Albula aurantium* Röding, 1798]; monotypy. Recent, Indo-Pacific. Is a junior subjective synonym of *Polinices* Montfort, 1810.

NATICELLA Münster, 1841:100. Type species not indicated; 10 species originally included. Triassic, Austria. Illustrations show strongly sculptured shells, which are possibly referable to the Vanikoridae. *Non* *Naticella* Swainson, 1840, *nec* Grateloup, 1847.

NATICELLA Grateloup, 1847:caption to pl. V; *non* Swainson, 1840. Type species *Natica neritoides*

Grateloup, 1827; monotypy. Tertiary, Europe. The figure shows this species to have a toothed columellar lip; it is presumably a neritoidean. Wenz (1941:1023) stated that *Deshayesia* Raulin, 1844 is the proper name for this taxon, as a subgenus of *Globularia* (see also Beets, 1948). *Non Naticella* Swainson, 1840, *nec* Münster, 1841.

NATICELLINA Perner, 1911:208–209. Type species *Naticella suavis* Perner, 1907; monotypy. Silurian, Bohemia. A junior subjective synonym of *Naticinema* Perner, 1903 (Knight, Batten, and Yochelson, 1960:1240; Platyceratidae).

NATICINA Guilding, 1834:30. Type species, *Naticina lactea* Guilding, 1834; original designation. Recent, western Atlantic. Is a junior subjective synonym of *Polinices* Montfort, 1810. *Naticina* Gray, 1840 (*n.n.*), 1842 (*n.n.*), and 1847 was renamed *Eunaticina* Fischer, 1885.

NATICINA Gray, 1840:151. In list; *nomen nudum*. *Non Naticina* Guilding, 1834. See *Naticina* Gray, 1842 and 1847.

NATICINA Gray, 1842:90. In list; *nomen nudum*. *Non Naticina* Guilding, 1834. See *Naticina* Gray, 1847.

NATICINA Macgillivray, 1843:4, 51, 124. Proposed as a family name; based on *Natica* Scopoli, 1777 and equivalent to Naticidae Forbes, 1838. *Non Naticina* Guilding, 1834.

NATICINA Gray, 1847:150; *non* Guilding, 1834. Type species *Nerita papilla* Gmelin, 1791; monotypy. Recent, Indo-Pacific. See *Eunaticina* Fischer, 1885.

NATICITES Krueger, 1823:390. Type species not indicated; two species originally included: *Naticites canrenae* [sic] and *Naticites millepunctatus*. A genus-group name for “fossils,” based on the genus *Natica*, and a junior homonym of *Natica* Scopoli, 1777 [International Code of Zoological Nomenclature, 1985, Articles 20 and 56(c)].

NATICODON Ryckholt, 1851:75. Type species “*Natica globosa* Hoeninghaus, 1830” [= *Naticodon globosum* Ryckholt, 1851] (see Knight, 1941:204); subsequent designation Konick, 1881:6. Carboniferous, Belgium. A junior subjective synonym of *Naticopsis* McCoy in Griffith, 1842 (Knight, Batten, and Yochelson, 1960:1276; Neritopsidae). See Rosenberg and Petit (1987:56) for further discussion.

NATICONEMA Perner, 1903:caption to pl. 54. Type species *Naticonema similare* Perner, 1903; monotypy. Silurian, Bohemia. Now referred to the Platyceratidae (Knight, Batten, and Yochelson, 1960:1240, fig. 153.1).

NATICOPSIS McCoy in Griffith, 1842:19. Type species *Natica ampliata* Griffith, 1836; subsequent designation Jankowlew (1899:115). Carboniferous, Ireland. Tryon (1886:8) placed this in the Natici-

dae, but it is now referred to the Neritopsidae (Archaeogastropoda) (Knight, Batten, and Yochelson, 1960:1276, fig. 181.7–8; Rosenberg and Petit, 1987: 57).

NATICUS Montfort, 1810:218. Type species *Nerita canrena* Linnaeus, 1758; original designation. Is a junior objective synonym of *Naticarius* Duméril, 1806.

NATINA Nomura, 1935:130; Oliveira and Oliveira, 1984:43. Error for *Natica* Scopoli, 1777.

NATIRIA Konick, 1881:5. Type species *Natica lirata* Philippi, 1836; monotypy. Carboniferous, Belgium. Tryon (1886:14) placed this in the Vanikoridae. Knight, Batten, and Yochelson (1960:1300, fig. 196.2) referred this to the Craspedostomatidae (Archaeogastropoda).

NEOCRITA Sowerby, 1883:75. Error for *Neverita* Risso, 1826.

NERINATICA Olsson, 1930:68. Type species *Natica* (*Nerinatica*) *payensis* Olsson, 1930; original designation. Eocene, Peru. Proposed as a subgenus of *Natica* Scopoli, 1777. Herein treated as a junior subjective synonym of *Sigatica* Meyer and Aldrich, 1886.

NERITA Linnaeus, 1758:776. Type species *Nerita peloronta* Linnaeus, 1758; subsequent designation Montfort, 1810:347. Recent, Caribbean. *Non Nerita* Rafinesque, 1815. A genus of marine archaeogastropods used for a number of pre-1850 naticid species.

NERITOIDES Meuschen, 1779:85. Type species *Nerita vitellus* Linnaeus, 1758; subsequent designation Kadolsky, 1971:191, 193. A junior objective synonym of *Natica* Scopoli, 1777.

NEVERITA Risso, 1826:149. Type species *Neverita josephinia* Risso, 1826; monotypy. Recent, Mediterranean. *Mamillaria* Swainson, 1840 is a synonym, *fide* Cernohorsky (1971:195) and Kilburn (1976:857). *Poliniciella* Petuch, 1988 is also a synonym. *Neocrita* Sowerby, 1883 and *Neverita* Matsui, 1985 are misspellings.

NEVERTITA Matsui, 1985:173. Error for *Neverita* Risso, 1826.

NOTOCHLIS “Powell” Cotton, 1959:368, 433, 446. Error for *Notocochlis* Powell, 1933.

NOTOCOCHLIS Powell, 1933:166. Type species *Cochlis migratoria* Powell, 1927 [= *Natica gualteriana* Récluz, 1844]; original designation. Recent, New Zealand. *Notochlis* Cotton, 1959 and *Notocochrus* Oyama, 1969, errors. Compare with *Cochlis* Röding, 1798; see Oyama (1985:20).

NOTOCOCHRIS Oyama, 1969:87. Error for *Notocochlis* Powell, 1933.

NUX Barnard, 1960:439. Type species *Nux alabaster* Barnard, 1960; original designation. Recent, South

Africa. Barnard stated that the shell was "naticoid" but that this was a Rhachiglossan (=Muricoidea) of an undetermined family. However, Salisbury, Edwards, and Curds (1963:89) listed this in the Naticidae.

ORTHOPIRA Kutassy, 1940:346. Type species *Euspira saginata* Böhm, 1895; original designation. Triassic, Europe. A replacement name for *Euspira sensu* Böhm, 1895 non Agassiz in Sowerby, 1837. Not treated by Wenz (1938–1944). Herein transferred to the Coelostylinidae.

PACHYCROMMIUM Woodring, 1928:391. Type species *Aaura guppyi* Gabb, 1873; original designation. Miocene, Dominican Republic. *Pseudocrommium* Clark, 1946 is a junior subjective synonym.

PAOSIA Böhm, 1895a:146. Type species *Natica faldensis* Böhm, 1895; original designation. Cretaceous, Europe. Is not naticid; Wenz (Errata, 1943: 1495) transferred this to *Tajanella* in the Pseudomelaniidae.

PAPATECTONATICA Oyama, 1969:87. Error for *Paratectonatica* Azuma, 1961.

PARATECTONATICA Azuma, 1961:202. Type species *Cochlis tigrina* Röding, 1798; original designation. Recent, Japan. Possibly congeneric with *Notocochlis* Powell, 1933?

PARVISINUM "Iredale" Salisbury, 1932:65. Error for *Pervisinum* Iredale, 1931.

PAYRADEAUTIA "Bucquoy, Dautzenberg, and Dollfus" Wenz, 1941:1045. Error for *Payraudeautia* Bucquoy, Dautzenberg, and Dollfus, 1883.

PAYRANDEAUTIA Oliveira, Rezende, and de Castro, 1981:125. Error for *Payraudeautia* Bucquoy, Dautzenberg, and Dollfus, 1883.

PAYRAUDAUTIA Dollfus, 1883:94. Error for *Payraudeautia* Bucquoy, Dautzenberg, and Dollfus, 1883.

PAYRADEAUTIA Bucquoy, Dautzenberg, and Dollfus, 1883:137, 149. Type species *Natica intricata* Donovan, 1804; original designation. Recent, Europe. *Payraudautia* Dollfus, 1883; *Payreaudautia* Simroth, 1907; *Payradeautia* Wenz, 1941; and *Payrandeautia* Oliveira, Rezende, and de Castro, 1981; errors. Is a junior subjective synonym of *Natica* Scopoli, 1777.

PAYREAUDAUTIA Simroth, 1907:1044. Error for *Payraudeautia* Bucquoy, Dautzenberg, and Dollfus, 1883.

PERVISINUM Iredale, 1931:216–217. Type species *Pervisinum dingeldeii* Iredale, 1931; monotypy. Recent, Australia. Kilburn (1976:869) as a junior subjective synonym of *Euvaticina* Fischer, 1885. *Parvisinum* Salisbury, 1932 is a misspelling.

PICTAVIA Cossmann, 1925:13–14. Type species *Natica pictariensis* d'Orbigny, 1850; original designa-

nation. Triassic–Jurassic, Europe. Not naticid, of uncertain familial placement.

PITONILLUS Féruccac, 1822:xxiv. Error for *Pitonillus* Montfort, 1810 (=*Umbonium* Link, 1807 [Gastropoda: Trochidae]; *fide* Wenz [1938:321]). However, Féruccac (1825:378) and Brönn (1848: 781, 983), with reference to *Natica cepacea* Lamarck, 1804, erroneously placed this genus in the Naticidae. This error does not represent a "type species" and is of no consequence with respect to the validity of *Cepatia* Gray, 1842.

PLICONACCA Cossmann and Martin, in Martin, 1914:171. Type species *Natica* (*Pliconacca*) *trisulata* Martin, 1914; monotypy. Eocene, Java. See Majima (1989:63) for comparison with *Glossaulax* Pilsbry, 1929.

POILYNICES Golikov, Gulbin, and Sirenko, 1987: 41. Error for *Polinices* Montfort, 1810.

POLINELLA Marwick, 1931:99. Type species *Uber obstructus* Marwick, 1924; original designation. Miocene, New Zealand. Proposed as a subgenus of *Polinices* Montfort, 1810.

POLINIA Desmarest, 1858:162. Error for *Polinices* Montfort, 1810.

POLINCIES Boss, Rosewater, and Ruhoff, 1968:241. Error for *Polinices* Montfort, 1810.

POLINICE Rang, 1829:190, 191. Error for *Polinices* Montfort, 1810.

POLINICES Montfort, 1810:222. Type species *Polinices albus* Montfort, 1810; original designation (=*Nerita mammilla* Linnaeus, 1758; frequently misspelled *mamilla* [e.g., Chernohorsky, 1971:191, 193]). Recent, Indo-Pacific. The nomenclatural problems with the type species and this genus were clarified by Kabat (1990:16–18). Synonyms include *Albula* Röding, 1798, *Mamma* Blainville, 1823, *Eucaryorum* Ehrenberg, 1831, *Naticina* Guilding, 1834, *Naticella* Swainson, 1840, *Uber* Gray, 1847, and *Manima* Mörcz, 1852. Incorrect spellings include *Polinicis* Blainville, 1826, *Polinice* Rang, 1829, *Polynices* Menke, 1830, *Pollinices* Mörcz, 1852, *Polinia* Desmarest, 1858, *Polinus* Hall, 1868, *Polinicies* Boss, Rosewater, and Ruhoff, 1968, and *Polinices* Golikov, Gulbin, and Sirenko, 1987.

POLINICIELLA Petuch, 1988:17. Type species *Poliniciella marylandica* Petuch, 1988; monotypy. Miocene, Maryland, U.S.A. Herein treated as a junior subjective synonym of *Neverita* Risso, 1826.

POLINICIS Blainville, 1826:310. Error for *Polinices* Montfort, 1810.

POLINUS Hall, 1868:46. Error for *Polinices* Montfort, 1810.

POLLINICES "Montfort" Mörcz, 1852:132. Error for *Polinices* Montfort, 1810.

POLYNICES "Montfort" Menke, 1830:47. Error for *Polinices* Montfort, 1810. However, Hermannsen

(1847:318) stated that this was a proper emendation for *Polinices* (i.e., the masculine spelling).

PRAENATICA Perner, 1903:caption to pls. 55, 56 (also in Perner, 1907:caption to pl. 105, 1911:171–172). Type species *Strophostylus gregarius proeva* Perner, 1903; subsequent designation Knight (1941:270). Silurian, Bohemia. Now placed in the Platyceratidae (Knight, Batten, and Yochelson, 1960:1240, fig. 153.8).

PRISCONATICA Gabb, 1877:277–278. Type species *Natica pedernalis* Roemer, 1849; original designation. Cretaceous, Texas, U.S.A. Of uncertain status, superficially similar to *Mammilla* Schumacher, 1817. Wenz (1941:1021) erroneously attributed *Prisconatica* to Pervinquiere, 1912 and listed it as a synonym of *Pseudamara* Fischer, 1885.

PRISTINACCA Finlay and Marwick, 1937:51. Type species *Uber senisculus* Marwick, 1924; original designation. Paleocene, New Zealand.

PROBLITORA Iredale, 1931:216. Type species *Amauropsis moerchi* Adams and Angas, 1863; original designation. Recent, Australia. Placed in the Littorinidae by Iredale (1931). Rosewater (1970:426) questionably referred this back to the Naticidae. It is now placed in the Epitonidae (=*Alexania* Strand, 1928 *fide* Anders Warén, *in litt.*, Oct. 1989).

PROLACUNA Thiele, 1913:86. Type species *Sublacuna indecora* Thiele, 1912; monotypy (of *Sublacuna* Thiele, 1913). Recent, sub-Antarctic. Replacement name for *Sublacuna* Thiele, 1912 non Pilsbry, 1895. *Frigidilacuna* Tomlin, 1930 is a junior objective synonym. See Dell (1990:162–163) for a review of this genus.

PROPESINUM Iredale, 1924:183, 255. Type species *Natica umbilicata* Quoy and Gaimard, 1832; original designation. Recent, Australia. Herein treated as a junior subjective synonym of *Eunaticina* Fischer, 1885.

PROSIGARETUS Perner, 1907:caption to pl. 105 (also in Perner, 1911:210–211). Type species *Prosigaretus perornatus* Perner, 1907; monotypy. Silurian, Bohemia. A junior subjective synonym of *Praenatica* Perner, 1903 (Knight, Batten, and Yochelson, 1960:1240; Platyceratidae).

PROSTYLIFER Koken, 1889:446. Type species *Melania paludinaria* Münster, 1841; monotypy. Triassic, Europe. Is probably in the Melanopsidae, although Wenz (1941:1021) listed *Prostyliifer* as a synonym of *Pseudamara* Fischer, 1885 (q.v.).

PROXIUBER Powell, 1933:167. Type species *Lunatia australis* Hutton, 1878; original designation. Recent, New Zealand.

PSEUDAMARA Fischer, 1885:767. Type species *Natica bulbiformis* Sowerby in Sedgwick and Murchison, 1832 (*nomen nudum*) (=*Natica bulbiformis* d'Orbigny, 1842 [pp. 162–163]; *ex* Sowerby);

monotypy. Cretaceous, Europe. Wenz (1941:1021) listed as synonyms *Prostyliifer* Koken, 1889, *Amplullospira* Harris, 1897, and *Prisconatica* "Pervinquiere, 1912." However, *Prostyliifer* is probably in the Melanopsidae, *Amplullospira* is valid (Marincovich, 1977:231) and *Prisconatica* Gabb, 1877 is of uncertain status. Wolff and Schenk (1972) reviewed the type species and four other Cretaceous taxa referable to this genus.

PSEUDOCEPATIA Magne and Vergneau-Saubade, 1973:240. Type species *Natica crassiuscula* Grateloup, 1827; original designation. Tertiary, Europe. Proposed as a subgenus of *Cepatia* Gray, 1842. Herein treated as a junior subjective synonym of *Cepatia* Gray, 1842.

PSEUDOCROMMIUM Clark, 1946:18. Type species *Pseudocrommium carmenensis* Clark, 1946; original designation. Eocene, Colombia. Herein treated as a junior subjective synonym of *Pachycrommium* Woodring, 1928.

PSEUDOPOLINICES Golikov and Sirenko, 1983:1339. Type species *Natica nana* Möller, 1842; original designation. Recent, circumboreal. Herein treated as a junior subjective synonym of *Euspira* Agassiz in Sowerby, 1837.

PSEUDOPOLYNICES Golikov, 1987:98. Error for *Pseudopolinices* Golikov and Sirenko, 1983.

PSEUDOTYLOSTOMA von Ihering, 1903:207. Type species *Pseudotylostoma romeroi* von Ihering, 1903; original designation. Cretaceous, Argentina. Herein rejected as a *nomen dubium*, based on an indeterminate specimen (Steinkern), although Wenz (1941:1021) listed this as subgenus of *Amipullina* Bowdich, 1822.

PSEUDOTYLOSTOMA Pchelintsev, 1963:38–39. Type species *Pterodonta corallinum* Étallon, 1859; original designation. Cretaceous, Europe. A junior homonym (but not a synonym) of *Pseudotylostoma* von Ihering, 1903. Pchelintsev placed von Ihering's name into the synonymy of *Tylostoma* Sharpe, 1848 and apparently he assumed that this action freed the name for subsequent reuse.

PTYCHOSTOMA Laube, 1866:45. Type species *Natica pleurotomoides* Wissmann in Münster, 1841; original designation. Triassic, Europe. Non *Ptychostomus* Agassiz, 1855 (Pisces); see *Kittlia* Cossmann, 1909. Wenz (1939:527) placed this in the Purpurinidae.

PUNCTOSPIRA Akopyan, 1976:27, 245. Type species *Tylostoma punctatum* Sharpe, 1849; original designation. Cretaceous, Europe. Compare with *Tylostoma* Sharpe, 1849.

QUANTONATICA Iredale, 1936:311. Type species *Natica subcostata* Tenison-Woods, 1878; original designation. Recent, Australia. Proposed as a subgenus of *Naticarius* Duméril, 1806. Herein treated as a junior subjective synonym of *Naticarius* Du-

mérit, 1806; see Oyama (1985:20–21) for further discussion.

RAYNEVALLIA Ponzi, 1872:80. One species listed: *Raynevallia romulea* Ponzi, 1872 (*nomen nudum*). This taxon was subsequently validated as *Sigaretus raynevalli* Ponzi, 1876 (Cenozoic, Italy). Not an available name and is equivalent to *Sinum* Röding, 1798.

REUMA "Chemnitz" Récluz, 1851:197. Error for *Ruma* Gray, 1847.

RUMA Gray, 1847:149; ex Chemnitz. Type species *Natica maura* Lamarck, 1816; original designation. Recent, Indo-Pacific. Published in synonymy of *Mammilla* Schumacher, 1817.

RUMA H. and A. Adams, 1853:209; ex Chemnitz. Type species *Ruma mammillaris* "Born" (=indeterminate *Mammilla* species). A junior objective synonym of *Mammilla* Schumacher, 1817.

RUMELLA Bourguignat, 1885:89. Type species not indicated; two originally included species: *R. giraudi* Bourguignat, 1885 and *R. milne-edwardsiana* Bourguignat, 1885 (illustrated in Bourguignat, 1888: pl. 17; 4 additional species described in Bourguignat, 1890:250–258; all placed in the Naticidae). Freshwater, Lake Tanganyika. Not naticid and is referable to the Thiaridae (Cerithioidea). Vaught (1989:30) misspelled as "Rumela."

SCARLATIA Schileyko, 1977:80–81. Type species *Natica fortunei* Reeve, 1855; original designation. Recent, N.W. Pacific. Is a junior subjective synonym of *Laguncula* Benson, 1842; see *Euspira* Agassiz in J. Sowerby, 1837.

SEGARETUS Millar, 1817:332. Error for *Sigaretus* Lamarck, 1799.

SIGARETIUS Duméril, 1806:164. Type species not indicated in original or by Froriep (1806:165; no example given); herein designated as *Helix halitoidea* Linnaeus, 1758. Therefore *Sigaretarius* is a junior objective synonym of *Sinum* Röding, 1798. Compare with *Sigaretus* Lamarck, 1799.

SIGARETHUS Schinz in Cuvier, 1825:588. Error for *Sigaretus* Lamarck, 1799.

SIGARETIA Herrmannsen, 1852:123. Error for *Sigaretus* Lamarck, 1799.

SIGARETIGENUS Renier, 1807:tav. viii. Emendation of *Sigaretus* Lamarck, 1799. Renier's works were rejected by the ICBN [Opinion 427, 1956].

SIGARETOPSIS Cossmann, 1888:168 (172). Type species *Natica infundibulum* Watelet, 1853; original designation. Eocene, Europe. Herein treated as a junior subjective synonym of *Mammilla* Schumacher, 1817 (see also Cossmann, 1925:106–108).

SIGARETOTREMA Sacco, 1890a:207 (314). Type species *Sigaretus michaudi* Michelotti, 1847; monotypy. Tertiary, Europe. Subsequently treated

as a subgenus of *Sigaretus* Lamarck, 1799 [= *Sinum* Röding, 1798] by Sacco (1890b:38). Herein treated as a junior subjective synonym of *Eunaticina* Fischer, 1885.

SIGARETUS Lamarck, 1799:77. Type species *Helix halitoidea* Linnaeus, 1758; monotypy. Is a junior objective synonym of *Sinum* Röding, 1798. See also *Sigaretarius* Duméril, 1806 and *Sigaretigenus* Renier, 1807. *Sigaretus* Millar, 1817, *Sigarethus* Schinz in Cuvier, 1825, *Sigeretus* Swainson, 1835, *Sigaretia* Herrmannsen, 1852, *Cigaretus* Hall, 1859, and *Sigretus* Martens, 1904 are misspellings.

SIGATICA Meyer and Aldrich, 1886:42 (106). Type species *Sigaretus* (*Sigatica*) *boettgeri* Meyer and Aldrich, 1886; monotypy. Tertiary, S.E. United States. Junior subjective synonyms herein include *Heliconatica* Dall, 1924, *Gennaeosinum* Iredale, 1929, *Nerinatica* Olsson, 1930, and *Glyptanatica* Gardner, 1947. *Sigaticus* Aldrich, 1887 is an unjustified emendation.

SIGATICUS Aldrich, 1887:83. An unjustified emendation for *Sigatica* Meyer and Aldrich, 1886.

SIGERETUS Swainson, 1835:7. Error for *Sigaretus* Lamarck, 1799.

SIGURETUS Martens, 1904:21. Error for *Sigaretus* Lamarck, 1799.

SINUBER Powell, 1951:120. Type species *Natica sculpta* Martens, 1878; original designation. Recent, sub-Antarctic. Dell (1990:160–162) reviewed the species referable to this genus.

SINUM Röding, 1798:14. Type species *Helix halitoidea* Linnaeus, 1758; subsequent designation Dall, 1915:109. Recent, Indo-Pacific. Synonyms include *Sigaretus* Lamarck, 1799, *Sigaretarius* Duméril, 1806, *Cryptostomus* Blainville, 1818, *Catinus* H. and A. Adams, 1853, and *Ectosinum* Iredale, 1931. See also *Catinus* Blainville, 1827, *Catinus* Oken, 1835, and *Raynevallia* Ponzi, 1872. *Sisum* Oliveira, 1988; *Sinuni* and *Sinum*, both Oyama, 1969; errors. Kabat (1990:4–9) provided further discussion of this genus.

SINUNI Oyama, 1969:80. Error for *Sinum* Röding, 1798.

SISUM Oliveira, 1988:20. Error for *Sinum* Röding, 1798.

SIUNM Oyama, 1969:81. Error for *Sinum* Röding, 1798.

SOHLELLA Popeno, Saul, and Susuki, 1987:78. Type species *Gyrodes canadensis* Whiteaves, 1903; original designation. Cretaceous, California, U.S.A.

SPELAENACCA Finlay, 1926:229. Type species *Magnatica altior* Finlay, 1926; original designation. Tertiary, New Zealand. Proposed as a subgenus of *Magnatica* Marwick, 1924.

STELZNERIA Geinitz, 1874:257. Type species *Stel-*

neria cepacea Geinitz, 1874; monotypy. Cenozoic, Europe. Wenz (1941:1027) doubtfully placed *Stelzneria* as a subgenus of *Tylostoma* Sharpe, 1849. However, based on Geinitz's figure, *Stelzneria* is herein treated as an aberrant member of the Stiliferidae.

STIGMAULAX Mörch, 1852:133. Type species *Nerita sulcatus* Born, 1778; subsequent designation Harris 1897:262. Recent, western Atlantic. *Aloconatica* Shikama, 1971 is a synonym.

STOMATIA Gray, 1847:150; ex Hill (1752:119) and Browne (1756:398). *Non Stomatis* Helbling, 1779 (Trochoidea). Published in synonymy of *Sigaretus* Lamarck, 1799 [= *Sinum* Röding, 1798]. See *Stomatius* Herrmannsen, 1852.

STOMATIUS Herrmannsen, 1852:127; ex Hill (1752: caption to pl. 7). Gray (1847:150) and Tryon (1886: 10) both placed this in the synonymy of *Sigaretus*. The original descriptions referred to the Caribbean *Sinum maculatum* (Say, 1831). A junior subjective synonym of *Sinum* Röding, 1798.

SUBLACUNA Thiele, 1912:195–196, non Pilsbry, 1895, nec Cossmann, 1899. Type species *Sublacuna indecora* Thiele, 1912; monotypy. Recent, sub-Antarctic. Renamed *Prolacuna* Thiele, 1913 and *Frigidilacuna* Tomlin, 1930.

SULCONACCA Marwick, 1924:556. Type species *Sulconacca vaughani* Marwick, 1924; original designation. Tertiary, New Zealand. A synonym of *Friginatrica* Hedley, 1916; fide Finlay and Marwick (1937:56).

SULCONATICA Golikov and Kusakin, 1974:294. Type species *Natica janthostoma* Deshayes, 1839; original designation. Recent, N.W. Pacific. Proposed as a subgenus of *Boreonatica* Golikov and Kusakin, 1974. Herein treated as a junior subjective synonym of *Cryptonatica* Dall, 1892.

TANEA Marwick, 1931:98. Type species *Natica zelandica* Quoy and Gaimard, 1832; original designation. Recent, New Zealand.

TANIELLA Finlay and Marwick, 1937:48. Type species *Natica notocenica* Finlay, 1924; original designation. Miocene, New Zealand. *Non Taniella* Kase, 1990 (Olividae).

TASMATICA Finlay and Marwick, 1937:51. Type species *Natica schoutanica* May, 1913; original designation. Recent, Tasmania.

TECTONATICA Maeda, 1988:124. Error for *Tectonatica* Sacco, 1890.

TECTONATICA Sacco, 1890b:33. Type species *Natica tectula* "Bors." Bonelli, 1826 (*nomen nudum*) [= *Natica (Tectonatica) tectula* Sacco, 1890b]; monotypy. Pliocene, Europe. Proposed as a subgenus of *Natica* Scopoli, 1777. Also listed in Sacco, 1890a:205 (312), but with a nude name as the sole species [*Tectonatica tectula* "Bon."]. *Cryptonatica*

Dall, 1892 is not a synonym (*contra* Wenz, 1941: 1040, *inter alia*), see Marinovich (1977:405) and Oyama (1985:19). *Tectonica* Carcelles and Williamson, 1951; *Tectonatic Maeda*, 1988, errors.

TECTONICA Carcelles and Williamson, 1951:283. Error for *Tectonatica* Sacco, 1890.

TEJONIA Hanna and Hertlein, 1943:172. Type species *Natica alteata* Conrad, 1855 (*non* Troschel, 1852; = *Amaurellina moragai* Stewart, 1927); original designation. Eocene, California, U.S.A.

TELLA Palmer, 1924:674. Replacement name for *Natella* Palmer, 1937 (*q.v.*). Type species *Natica magnoumbilicata* Lea, 1833; original designation. Eocene, Alabama, U.S.A. Herein treated as a junior subjective synonym of *Naticarius* Duméril, 1806.

TRACHYDOMIA Meek and Worthen, 1866:364. Type species *Naticopsis nodosus* Meek and Worthen, 1860; original designation. Carboniferous, Illinois, U.S.A. Tryon (1886:8) placed this in the Naticidae. This taxon is currently referred to the Neritopsidae (Archaeogastropoda) (Knight, Batten, and Yochelson, 1960:1277, fig. 182.5).

TROCHONATICA Phelintsev, 1963:34–35. Type species *Natica mexikoensis* Choffat, 1886; original designation. Cretaceous, Europe. Superficially similar to *Globularia* or *Cernina*; herein rejected as a *nomen dubium*.

TURBO Linnaeus, 1758:761. Type species *Turbo petholatus* Linnaeus, 1758; subsequent designation Montfort, 1810:203. Recent, Indo-Pacific. A genus of marine archaeogastropods, this name was used for a number of pre-1850 naticid species (especially for fossils).

TYCHONIA Konick, 1881:7. Type species *Natica omaliana* Konick, 1843; monotypy. Carboniferous, Belgium. Tryon (1886:9) placed this in the Naticidae. Knight, Batten, and Yochelson (1960:1244, fig. 156.2) referred this to the Anomphalidae (Archaeogastropoda).

TYLOSTOMA Sharpe, 1849:378. Type species *Tylostoma torrubiae* Sharpe, 1849; subsequent designation White, 1880:142. The designation of *Tylostoma globosum* Sharpe, 1849 as type species by Wenz (1941:1026) came later. Cretaceous, Europe. Possibly referable to the Neritoidea? *Varigera* d'Orbigny, 1850 and *Varicigera* Douville, 1916 are junior synonyms. All three taxa have 2 varices on the shell and resemble extinct neritoideans. Tryon (1886:9–10) placed this genus in the Tornatellidae. Wenz (1941:1027) listed *Stelzneria* Geinitz, 1874 as a subgenus; however, that taxon is referable to the Stiliferidae. Numerous fossil species have subsequently been described for this genus and some may be naticid (*cf.* the descriptions in Mallada, 1887:57–59, pl. 18). A confused discussion of this taxon and its possible relationships with *Pterodontia* (Stromboidea: Colombellinidae) was provided by

Stoliczka (1867:35–41, 1868:292–294). Compare *Pseudotylostoma* von Ihering, 1903 and *Punctospira* Akopyan, 1976.

UBA "Humphreys" Fletcher, 1938:113. Error for *Uber*; only one species listed: *Uba fallai* Fletcher, 1938.

UBER Gray, 1847:149; *ex* Humphrey, 1797 (invalid work). Type species *Nerita mammilla* Linnaeus, 1758; subsequent designation Philippi, 1853:497. Recent, Indo-Pacific. Published in synonymy of *Polinices* Montfort, 1810. Also "described" by Dunker (1882:62) and by Cotton and Godfrey (1931: 19).

UBERELLA Finlay, 1928:248. Type species *Natica vitrea* Hutton, 1873; original designation. Recent, New Zealand. Finlay compared this taxon with *Euspira*.

VANIKOROPSIS Meek, 1876:331. Type species *Natica tuomeyan* Meek and Hayden, 1856; original designation. Cretaceous, Nebraska, U.S.A. Is referable to the Vanikoridae on the basis of the shell sculpture (see Sohl, 1967:22).

VARICIGERA Douvillé, 1916:143. Unjustified emendation for *Varigera* d'Orbigny, 1850.

VARIGERA d'Orbigny, 1850:68, 103. Type species *Varigera rochatiana* d'Orbigny, 1850; subsequent designation Douvillé, 1916:144. Cretaceous, Europe. Is a junior subjective synonym of *Tylostoma* Sharpe, 1849 (see Stoliczka, 1868:293). *Varicigera* Douvillé, 1916 is an unjustified emendation.

VELAINIA Munier-Chalmas, 1884:335–336. Type species *Natica cepacea* Lamarek, 1804; original designation. Eocene, Europe. Is a junior objective synonym of *Cepatia* Gray, 1842.

VERNELIA Böhm, 1895b:250. Type species *Natica fastigiata* Stoppapi, 1857; subsequent designation Woodward, 1896:76. Paleozoic, Europe. Now referred to the Neritopsidae (Archaeogastropoda) (Knight, Batten, and Yochelson, 1960:1276–1277, fig. 180A.2).

WALUIA Ladd, 1934:211. Type species *Globularia edwardsii* Ladd, 1934; original designation. Miocene, Fiji. Proposed as a subgenus of *Globularia* Swainson, 1840. Ladd (1977:27–28, pls. 7–9) reillustrated the type specimens and subsequently collected material which "shows the flaring aperture rim more clearly than do the types." *Waluina* Majima, 1989, error.

WALUINA Majima, 1989:26, 159. Error for *Waluia* Ladd, 1934.

WEXFORDIA Harmer, 1921:704. Type species *Wexfordia dautzenbergi* Harmer, 1921; monotypy [= *Torellia vestita* Harmer, 1918]. Pliocene, Great Britain. Wenz (1941:1037) placed this as a genus in the Polinicinae, but this is herein referred to the Trichotropidae.

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LITERATURE CITED

It must be noted that this bibliography contains only the primary sources; secondary sources are limited to those involving explicit discussion of a given genus or other aspects. Not included are the citations for homonyms (in other families) of naticid generic names as these can be readily obtained from the various editions of Neave (1939–1940 ff.). Also not included are citations to the original descriptions of the type species (unless, of course, they were described along with the new genus). To include these latter categories of references would needlessly lengthen this bibliography.

- ADAMS, A. 1867. Descriptions of new species of shells from Japan. Proceedings of the Zoological Society of London, **1867**(2): 309–315, pl. 19.
- ADAMS, H., AND A. ADAMS. 1853–1858. The Genera of Recent Mollusca; Arranged According to their Organization. London: Van Voorst, 3 volumes.
- ADANSON, M. 1757. Histoire naturelle du Sénégal. Coquillages. Avec la relation abrégée d'un voyage fait en ce pays, pendant les années 1749, 50, 51, 52 & 53. Paris: Bauche, 1, Voyage, viii + 190 pages; II, Coquillages, xcvi + 275 pp., 19 pls., 1 map.

- AGASSIZ, L. 1848. Nomenclatoris Zoologici: Index Universalis, continens nomina systematica classium, ordinum, familiarum et generum Animalium omnium, tam viventium quam fossilium . . . Soloduri: Jent et Gassmann, x + 1135 pp.
- AKOPYAN, V. T. 1976. Late Cretaceous Gastropods of the Armenian SSR. Erevan: Akademii Nauk Armyanskoi SSR, 443 pp. [In Russian.]
- ALDRICH, T. H. 1887. Notes on Tertiary fossils, with descriptions of new species. Journal of the Cincinnati Society of Natural History, **10**(2): 78–83, 1 fig.
- ANTON, H. E. 1838. Verzeichniss der Conchylien, welche sich in der Sammlung von Hermann Eduard Anton befinden. Halle: Eduard Anton, xvi + 110 pp.
- ARISTOTLE. 345–342 ff., B.C. Historia Animalium. Translated by A. L. Peck. Cambridge: Harvard University Press (Loeb Classical Library), I(1–3): civ + 240 + 8 pp. [1965]; II(4–6): viii + 414 + 8 pp., 2 endpaper graphs [1970]; III(7–9) not yet published.
- AZUMA, M. 1961. Studies on the radulae of Japanese Naticidae (1). Venus, The Japanese Journal of Malacology, **21**(2): 196–204, pls. 12–15.
- BARNARD, K. H. 1960. New species of South African marine gastropods. Journal of Conchology, **24**(12): 438–442.
- BEETS, C. 1948. Notes on the genus *Deshayesia* Raulin. Basteria, **12**(2–4): 19–22.
- BENSON, W. H. 1842. [Descriptions of the Mollusca.] In T. Cantor (ed.), General features of Chusan, with remarks on the flora and fauna of that island (part 3). The Annals and Magazine of Natural History, including Zoology, Botany, and Geology, (1) **9**(60): 481–493.
- BERRY, S. S. 1964. Notices of new Eastern Pacific Mollusca. VI. Leaflets in Malacology, **1**(24): 147–154.
- BEU, A. G., AND P. A. MAXWELL. 1990. Cenozoic Mollusca of New Zealand. New Zealand Geological Survey Paleontological Bulletin, **58**: 1–518, 57 pls.
- BLAINVILLE, H.-M. DUCROTAY DE. 1818a [August]. Sur un nouveau genre de mollusques, Cryptostome, *Cryptostomus*. Bulletin des Sciences par la Société Philomatique de Paris, Année 1817: 120–122.
- . 1818b. Cryptostome, *Cryptostomus*. (Malacoz.). Dictionnaire des Sciences Naturelles (ed. F. G. Levraud), **12**: 126–128.
- . 1823. Mamma. (Conchyl.). Dictionnaire des Sciences Naturelles (ed. F. G. Levraud), **28**: 475.
- . 1826. Polinice, *Polinicis*. (Conchyl.). Dictionnaire des Sciences Naturelles (ed. F. G. Levraud), **42**: 310.
- . 1827. Sigaret, *Sigaretus*, (Malacoz.). Dictionnaire des Sciences Naturelles (ed. F. G. Levraud), **49**: 105–113.
- BLANCKENHORN, M. 1927. Die fossilen Gastropoden und Scaphopoden der Kreide von Syrien-Palästina. Palaeontographica, **69**(1–6): 111–186, pls. 5–10.
- BÖHMI, G. 1895a. Beiträge zur Kenntniss der Kreide in den Südalpen. I. Die Schiosi- und Calloneghe-Fauna. Palaeontographica, **41**(3–4): 81–148, pls. 8–15.
- . 1895b. Die Gastropoden des Marmolata-kalkes. Palaeontographica, **42**(4–5): 211–308, pls. 9–15.
- BONARELLI, G. 1921. Tercera contribución al conocimiento geológico de las regiones petrolíferas subandinas del norte (provincias de Salta y Jujuy). Anales del Ministerio de Agricultura de la Nación, Sección Geología, Mineralogía y Minería, Buenos Aires, **15**(1): 1–96, 15 pls.
- BOSS, K. J., J. ROSEWATER, AND F. A. RUHOFF. 1968. The zoological taxa of William Healey Dall. Bulletin of the United States National Museum, **287**: 1–427.
- BOURGUIGNAT, M. J.-R. 1885. Notice prodromique sur les mollusques terrestres et fluviatiles recueillis par M. Victor Giraud dans la région méridionale du lac Tanganyika. Paris: V. Tremblay, 110 pp.
- . 1888. Iconographie malacologique des animaux mollusques fluviatiles du lac Tanganyika. Corbeil: Crété, 82 pp. + 35 pls.
- . 1890. Histoire malacologique du lac Tanganyika (Afrique Equatoriale). Annales des sciences naturelles, Zoologie et Paléontologie, (7) **10**: 1–267, pls. 1–17.
- BOWDICH, T. E. 1822 [February]. Elements of Conchology, Including the Fossil Genera and the Animals. Part I. Univalves. Paris: J. Smith, 83 pp. + 19 pls.
- BRONN, H. G. 1848. Naturgeschichte der drei Reiche, zur allgemeinen Belehrung. 5. Handbuch einer Geschichte der Natur. 3(1) [1–2]. III. Theil: Organische Leben (Fortsetzung). Index palaeontologicus . . . A. Nomenclator palaeontologicus, in alphabetischer Ordnung. Stuttgart: Schweizerbart'sche, lxxiv + 1382 pp.
- BRONN, H. G., AND F. ROEMER. 1851. H. G. Bronn's Lethaea Geognostica oder Abbildungen und Beschreibungen der für die Gebirgs-Formationen bezeichnendsten Versteinerungen. Zweiter Band. 3. Meso-Lethaea: III Theil: Trias-Periode. Stuttgart: Schweizerbart'sche, 124 pp.
- BROWNE, P. 1756. The Civil and Natural History of Jamaica. Part II. Book III of Animals. London: T. Osborne and J. Shipton, viii + 503 pp., 49 pls., 1 map.
- BUCQUOY, E., P. DAUTZENBERG, AND G. F. DOLLFUS. 1883 [August]. Les mollusques marins du Rousillon. Tome I. Gastropodes. Fascicule 4: 137–196, pls. 17–21. Familles: Naticidae, Pyramidellidae. Paris: Baillière.
- BURCH, J. Q., AND G. B. CAMPBELL. 1963. A new

- genus for a deep-water Californian naticid. Proceedings of the Malacological Society of London, 35(5): 221–223, pl. 34.
- CARCELLES, A. R., AND S. I. WILLIAMSON. 1951. Catalogo de los Moluscos Marinos de la Provincia Magallanica. Revista del Instituto Nacional de Investigacion de las Ciencias Naturales, Museo Argentino de Ciencias Naturales "Bernardino Rivadavia," Ciencias Zoológicas, 2(5): 225–383.
- CERNOHORSKY, W. O. 1971. The family Naticidae (Mollusca: Gastropoda) in the Fiji Islands. Records of the Auckland Institute and Museum, 8: 169–208.
- CHELOT, E. 1885 [post-Sept.]. Rectifications pour servir à l'étude de la faune éocène du bassin de Paris. Bulletin de la Société Géologique de France, (3) 13: 191–203.
- . 1886 [1887?]. Supplément à la géologie de la Sarthe de A. Guillier. Bulletin de la Société Géologique de France, (3) 15: 9.
- CLARK, B. L. 1946. The Molluscan faunas, pp. 4–76. In B. L. Clark and J. W. Durham (eds.), Eocene Faunas from the Department of Bolívar, Colombia. Geological Society of America Memoir, 16: 1–126, 28 pls.
- CLEEVELY, R. J. 1974. The Sowerbys, the *Mineral Conchology*, and their fossil collection. Journal of the Society for the Bibliography of Natural History, 6(6): 418–481.
- CLENCH, W. J., AND M. K. JACOBSON. 1966. On *Ampullina* Guppy. The Nautilus, 80(2): 71.
- . 1968. Monograph of the Cuban genus *Viana* (Mollusca: Archaeogastropoda: Helicinidae). Breviora, 298: 1–25.
- COAN, E. 1964. A proposed revision of the rissococean families Rissoidae, Rissoinidae, and Cingulopsidae (Mollusca: Gastropoda). The Veliger, 6(3): 164–171.
- CONRAD, T. A. 1860. Descriptions of new species of Cretaceous and Eocene fossils of Mississippi and Alabama. Journal of the Academy of Natural Sciences of Philadelphia, (2) 4: 275–298, pls. 46–47.
- . 1865. Catalogue of the Eocene and Oligocene Testacea of the United States. American Journal of Conchology, 1(1): 1–35.
- . 1866. Notes on the genus *Gadus*, with descriptions of some new genera and species of American fossil shells. American Journal of Conchology, 2(1): 75–78.
- COSSMANN, M. 1885. Contribution à l'étude de la faune de l'étage Bathonien en France (Gastéropodes). Mémoires de la Société Géologique de France, (3) 3(3): 1–374, pls. 1–18.
- . 1888 [July]. Catalogue illustré des coquilles fossiles de l'Eocène des environs de Paris. Gastéropodes. Troisième Fascicule. Annales de la Société Royale Malacologique de Belgique, 23: 3–324, pls. 1–12. As a separate, 328 pp., 12 pls.
- . 1893. Revue de Paléontologie pour l'année 1891, dirigée par M. H. Douvillé. Mollusques: Gastéropodes. Annuaire Géologique Universel, Revue de Géologie et Paléontologie, 8: 709–751.
- . 1896. Revue de Paléoconchologie. La Feuille des Jeunes Naturalistes, 26(312): 230–240.
- . 1899. Rectifications de Nomenclature. Revue Critique de Paléozoologie, 3: 45–46.
- . 1907. Le Barrémien Supérieur à faciès Urgonien de Brouzet-lez-Alais (Gard). Notice stratigraphique (par E. Pellat: page 5 only); Description des gastéropodes et pélécypodes (par M. Cossmann). Mémoires de la Société Géologique de France, Paléontologie, 15(2) [=Mémoire 37]: 6–42, pls. 1–6.
- . 1909 [April]. Essais de paléoconchologie comparée, 8: 1–248, pls. 1–4. Paris [priv. publ.]
- . 1919 [10 Oct.]. Monographie illustrée des mollusques Oligocéniques des environs de Rennes. Journal de Conchyliologie, 64(3): 183–199, pls. 4–7.
- . "1924" 1925 [February]. Essais de paléoconchologie comparée, 13: 1–345, pls. 1–11. Paris: Les Presses Universitaires de France.
- COSSMANN, M., AND A. PEYROT. 1917–1918. Conchologie néogénique de l'Aquitaine. Actes de la Société linnéenne de Bordeaux, 70: 5–491, pls. 1–17. [pp. 5–180 in 1917; 181–491 in 1918; latter section reprinted in 1919].
- COTTON, B. C. 1959. South Australian Mollusca: Archaeogastropoda. Handbook of the Flora and Fauna of South Australia, 449 pp. [Despite the title, this includes the other orders.]
- COTTON, B. C., AND F. K. GODFREY. 1931. South Australian shells. The South Australian Naturalist, 13(1): 5–23.
- COX, L. R. 1930. The Mollusca of the Hangu Shales. Memoirs of the Geological Survey of India, Palaeontologia Indica, (n.s.) 15(8): ii + 129–222, pls. 17–22.
- . 1931. A contribution to the molluscan fauna of the Laki and basal Khirthar groups of the Indian Eocene. Transactions of the Royal Society of Edinburgh, 57(1): 25–92, 4 pls.
- CUVIER, G. L. C. F. D. 1821–1825. Das Thierreich . . . aus dem Französischen frey übersetzt und mit vielen Zusätzen versehen von H. R. Schinz. Stuttgart and Tübingen: J. C. Cotta, 4 volumes.
- DALL, W. H. 1892. Contributions to the Tertiary fauna of Florida, with especial reference to the Miocene Silex-beds of Tampa and the Pliocene beds of the Caloosahatchie River. Part II. Streptodont and other gastropods, concluded. Transactions of the Wagner Free Institute of Science of Philadelphia, 3(2): 201–473, pls. 13–22.
- . 1896. Diagnoses of new Tertiary fossils from the Southern United States. Proceedings of the United States National Museum, 18(1035): 21–46.
- . 1903. Contributions to the Tertiary fauna of Florida. . . . Part VI concluding the work. Transactions of the Wagner Free Institute of Sci-

- ence of Philadelphia, **3**(6): xiv + 1229–1654, pls. 48–60.
- . 1908 [October]. Reports on the dredging operations off the west coast of Central America to the Galapagos, to the west coast of Mexico, and in the Gulf of California, in charge of Alexander Agassiz, carried on by the U.S. Fish Commission Steamer 'Albatross,' during 1891, Lieut. Commander Z. L. Tanner, U.S.N., commanding. XXXVII. Reports on the scientific results of the expedition to the eastern tropical Pacific, in charge of Alexander Agassiz, by the U.S. Fish Commission Steamer 'Albatross,' from October, 1904, to March, 1905, Lieut. Commander L. M. Garrett, U.S.N., Commanding. XIV. The Mollusca and the Brachiopoda. Bulletin of the Museum of Comparative Zoölogy at Harvard College, **43**(6): 205–487, pls. 1–19.
- . 1909. Contributions to the Tertiary paleontology of the Pacific Coast. I. The Miocene of Astoria and Coos Bay, Oregon, United States Geological Survey Professional Paper, **59**: 1–278, pls. 1–23.
- . 1915. A monograph of the molluscan fauna of the *Orthaulax pugnax* zone of the Oligocene of Tampa, Florida. Bulletin of the United States National Museum, **90**: xv + 173 pp., pls. 1–26.
- . 1918. Changes in and additions to molluscan nomenclature. Proceedings of the Biological Society of Washington, **31**: 137–138.
- . 1921. Summary of the marine shellbearing mollusks of the Northwest coast of America, from San Diego, California, to the Polar Sea, mostly contained in the collections of the United States National Museum, with illustrations of hitherto unfigured species. Bulletin of the United States National Museum, **112**: 1–217, pls. 1–22.
- . 1924. Notes on molluscan nomenclature. Proceedings of the Biological Society of Washington, **37**: 87–90.
- DAWSON, J. W. 1872. The post Pliocene geology of Canada. The Canadian Naturalist and Quarterly Journal of Science (n.s.), **6**(4): 369–416, pls. 4–7.
- DEFRANCE, J. L. M. 1821. *Helice, Helix.* (Malacoz.). Dictionnaire des Sciences Naturelles (ed. F. G. Levrault), **20**: 390–449.
- DELL, R. K. 1956. Some new off-shore Mollusca from New Zealand. Records of the Dominion Museum, **3**(1): 27–59.
- . 1990. Antarctic Mollusca with special reference to the fauna of the Ross Sea. Royal Society of New Zealand, Bulletin, **27**: ii + 311, 482 figs.
- DESHAYES, G. P. 1830. *Ampullina.* Ampullina. Encyclopédie méthodique. Histoire naturelle des vers, Tome Second, Partie I, page 36. Paris: Agasse, vii + 256 pp.
- . 1838 [in 1835–1845]. Histoire naturelle des animaux sans vertèbres. . . Deuxième édition revue et augmentée. . . Volume 8. Paris: J. B. Baillière, 660 pp.
- DESMAREST, E. 1858. Encyclopédie d'histoire naturelle ou traité complet de cette science . . . par Le Dr. Chenu . . . Crustacés, Mollusques, Zoophytes. Paris: E. Girard et A. Boitte, iv + 312 pp.
- DIENER, C. 1926. Glossophora triadiaca. Fossilium Catalogus I: Animalia, **34**: 1–242. Berlin: W. Junk.
- DIXON, F. 1850. The Geology and Fossils of the Tertiary and Cretaceous Formations of Sussex. London: Longman, Brown, Green, and Longman, xvi + 423 pp., pls. 1–40. [Mollusca by James de Carle Sowerby.]
- DODGE, H. 1947. Lamarck's Prodrome d'une nouvelle classification des coquilles. The Nautilus, **61**(2): 60–70.
- DOLLFUS, G.-F. 1883. Liste des coquilles marines recueillies à Palavas (Hérault). La Feuille des Jeunes Naturalistes, **13**(152): 93–95.
- D'ORBIGNY, A. C. V. 1842. Paléontologie française. Description zoologique et géologique de tous les animaux mollusques et rayonnés fossiles de France. Terrains Crétacés. Paris: Arthus-Bertrand, Vol. 2 [Gastéropodes], 456 pp., pls. 149–270.
- . 1850 [November]. Prodrome de paléontologie stratigraphique universelle des animaux mollusques et rayonnés. . . Paris: Masson, Vol. 2, 428 pp.
- DOUVILLÉ, M. H. 1916. Les terrains secondaires dans le Massif du Moghra à l'est de l'isthme de Suez, d'après les explorations de M. Couyat-Barthoux. Paléontologie. I. Terrains Triassique et Jurassique. Mémoires de l'Académie des Sciences de l'Institut de France, (sér. 2) **54**: 1–184, pls. 1–21.
- DUMÉRIL, A. M. C. 1806. Zoologie analytique, ou méthode naturelle de classification des animaux, rendue plus facile à l'aide de tableaux synoptiques. Paris: H. L. Perronneau, 344 pp.
- DUNKER, G. 1882. Index Molluscorum Maris Japonici. Novitates Conchologicae, Abbildung und Beschreibung neuer Conchylien, Supplement, **7**: 301 pp., 16 pls.
- EHRENCBERG, C. G. 1831 [in 1828–1845]. Animalia Mollusca. Symbolae Physicae seu Icones et Descriptiones Animalium Evertebratorum sepositis Insectis quae ex itinere per Africam Borealem et Asiam Occidentalem. Decas Prima, 7–8, Mollusca (1–2). Berolini: Officina Academica, 46 pp. + 2 pls.
- FABRICIUS, O. 1823. Fortegnelse over afgangne Biskop Fabricius's efterladte Naturalier. Pp. 51–114, Fortegnelse over en god og velkonditioneert Bogsamling tillegemed en betydelig Deel Naturalier, hvoriblandt en Conchyliesamling, afgangne Biskop Fabricius's og efterlevende Enkes Bo tillhørende, som ved Auction . . . Kjøbenhavn. [Rejected work: ICZN Opinion 521, 1958.]
- FAUJAS [DE SAINT-FOND], B. 1809. Notice sur une mine de charbon fossile du département du Gard, dans laquelle on trouve du succin et des coquilles

- marines. *Annales du Muséum d'Histoire Naturelle*, **14**: 314–324, pl. 19.
- FÉRUSSAC, A. E. J. P. J. F. D'A., BARON DE. 1822. Tableaux systématiques généraux de l'embranchement des mollusques, divisés en familles naturelles, suivis d'une table alphabétique générale et synonymique de toutes les dénominations générées connues. Paris: Bertrand, pp. i–xlviii. [Note: pp. i–xxiv published February 16; the remainder on April 13; see Kennard, 1942a, 1942b.]
- . 1825. [Review of "Description des coquilles fossiles des environs de Paris"; par G. P. Deshayes, VII et VIII. . .] *Bulletin Universel des Sciences et de l'Industrie, Deuxième Section, Bulletin des Sciences Naturelles et de Géologie*, **5**: 377–379.
- FINLAY, H. J. 1926. New shells from New Zealand Tertiary beds: Part 2. *Transactions of the New Zealand Institute*, **56**: 227–258, pls. 55–60.
- . 1928. The Recent Mollusca of the Chatham Islands. *Transactions of the New Zealand Institute*, **59**(2): 232–286.
- FINLAY, H. J., AND J. MARWICK. 1937. The Wanganian and associated molluscan faunas of Kaitangata–Green Island Subdivision. *New Zealand Geological Survey Palaeontological Bulletin*, **15**: 1–140, 28 pls.
- FISCHER, P. 1880–1887. Manuel de conchyliologie et de paléontologie conchyliologique ou histoire naturelle des mollusques vivants et fossiles. Paris: Savy, xiv + 1369 pp., 23 pls. [Naticidae: pp. 764–769; 29 January 1885].
- FLETCHER, H. O. 1938. Marine Tertiary fossils and a description of a recent *Mytilus* from Kerguelen Island. B.A.N.Z. Antarctic Research Expedition 1929–1931. Reports—Series A, 2 (Geology), Part 6: 103–116.
- FORBES, E. 1838. *Malacologia Monensis. A Catalogue of the Mollusca Inhabiting the Isle of Man and the Neighbouring Sea*. Edinburgh: John Carfree and Son, xii + 63 pp., 3 pls.
- FRORIEP, L. F. VON. 1806. C. Dumeril's, Doctors und Professors an der Medicinischen Schule zu Paris, Analytische Zoologie. Aus dem Französischen, mit Zusätzen von L. Froriep. Weimar: Landes-Industrie-Comptoirs, vi + 343 pp.
- GABB, W. M. 1877. Description of a collection of fossils, made by Doctor Antonio Raimondi in Peru. *Journal of the Academy of Natural Sciences of Philadelphia*, (n.s.) **8**(2): 263–336.
- GARDNER, J. 1916. Mollusca, pp. 371–733. In W. B. Clark (ed.), *Maryland Geological Survey. Upper Cretaceous*. Baltimore: Johns Hopkins Press, 1022 pp. + 90 pls.
- . 1945. Mollusca of the Tertiary formations of Northeastern Mexico. *Geological Society of America, Memoir* 11: xi + 332 pp., 28 pls.
- . 1947. The molluscan fauna of the Alum Bluff Group of Florida. Part VII. Ctenobranchia (remainder), Aspidobranchia, and Scaphopoda. United States Geological Survey Professional Paper, 142-H: 493–656, pls. 52–62.
- GARDNER, J., AND E. BOWLES. 1934. Early Tertiary species of gastropods from the Isthmus of Tehuantepec. *Journal of the Washington Academy of Sciences*, **24**(6): 241–248.
- GEINITZ, H. B. 1874. [in 1871–1875]. Das Elbtalgebirge in Sachsen. Erster Theil. Der untere Quader. *Palaearctographica*, **20**(1): 1–320, pls. 1–67.
- GOLIKOV, A. N. 1987. Class Gastropoda Cuvier, 1797, pp. 41–149, text-figs. 6–11, figs. 10–87. In O. A. Scarlato (ed.), *Mollusca of the White Sea*. Opredeliti po Faune SSSR, **151**: 1–324. [In Russian.]
- GOLIKOV, A. N., AND O. G. KUSAKIN. 1974. Additions to the fauna of shell-bearing gastropods from the intertidal zone of the Kurile Islands, pp. 289–299. In A. V. Zhirmunsky (ed.), *The Flora and Fauna of the Intertidal Zone of the Kurile Islands*. Marine Biological Institute, Far Eastern Scientific Center, Academy of Sciences, USSR, 373 pp. [In Russian.]
- . 1978. Shelled gastropods of the littoral seas of the USSR. Opredeliti po Faune SSSR, **121**: 1–256, figs. 1–155. [In Russian.]
- GOLIKOV, A. N., AND B. I. SIRENKO. 1983. The composition and distribution of Prosobranchs of the order Naticiformes in the Seas of the USSR. *Zoologicheskii Zhurnal*, **62**(9): 1334–1342. [In Russian.]
- . 1988. The naticid gastropods in the boreal waters of the Western Pacific and Arctic Oceans. *Malacological Review*, **21**: 1–41. [A translation and expansion of the previous paper.]
- GOLIKOV, A. N., AND YA. I. STAROBOGATOV. 1975. Systematics of prosobranch gastropods. *Malacologia*, **15**(1): 185–232.
- . 1989 ["1988"; 7 August 1989]. Problems of phylogeny and system of the Prosobranchiate Gastropods. *Trudy Zoologicheskogo Instituta*, **187**: 4–77. [In Russian.]
- GOLIKOV, A. N., V. V. GULBIN, AND B. I. SIRENKO. 1987. Prosobranch molluscs from the Moneron Island shelf (Sea of Japan). 2. Orders Naticiformes—Eulimiformes, pp. 41–56, pls. 3–6. In N. M. Baranovskaya (ed.), *Fauna and Distribution of Molluscs: Northern Pacific and the Polar Basin*. Marine Biological Institute, Far Eastern Scientific Center, Academy of Sciences, USSR, 146 pp. [In Russian.]
- GRATELOUP, J. P. S. DE. 1847. Conchyliologie fossile des terrains Tertiaires du bassin de l'Adour. (Environs de Dax). Tome I. Univalves. Atlas. Bordeaux: Lafargue, xx pp., 48 pls.
- GRAY, J. E. 1824. On the genera *Sigaretus* and *Cryptostoma*. *The Zoological Journal*, **1**: 427–428.
- . 1840. [Mollusca], pp. 86–89; 106–151. In *Synopsis of the Contents of the British Museum*, 42nd edition. London: Woodfall.

- . 1842 [May 21]. [Mollusca], pp. 49–92. In Synopsis of the Contents of the British Museum, 44th edition. London: Woodfall.
- . 1847 [post November 9]. A list of the genera of Recent Mollusca, their synonyma and types. Proceedings of the Zoological Society of London, 15(179): 129–219.
- . 1857 [9 May]. Guide to the Systematic Distribution of Mollusca in the British Museum. Part I [Gastropoda]. London: Taylor and Francis, xii + 230 pp., 121 text-figs. [Preface, "Dec. 10, 1856."]
- GREGORIO, A. DE. 1930. Fossili triassici delle Cave di Billiemi presso Palermo, conservati nel mio privato gabinetto geologico. Annales de Géologie et de Paléontologie, 54: 1–40, 7 pls.
- GRIFFITH, R. J. 1842. Notice Respecting the Fossils of the Mountain Limestone of Ireland As Compared with Those of Great Britain, and Also with the Devonian System. Dublin: Graisberry and Gill, 25 pp., 1 pl.
- GULDING, L. 1834. Observations on *Naticina* and *Dentalium*, two genera of molluscous animals. Transactions of the Linnean Society of London, 17: 29–36.
- HABE, T., AND K. ITO. 1965. Shells of the World in Colour. Vol. I. The Northern Pacific. Osaka: Hoikusha, x + 176 pp., 56 pls. [In Japanese.]
- HALL, J. 1859. Fossils from the Eocene Tertiary of Paris, presented by W. C. Johnson, Esq., of Utica, p. 98. In Twelfth Annual Report of the Regents of the University of the State of New York, on the Condition of the State Cabinet of Natural History and the Historical and Antiquarian Collection Connected Therewith. Albany: C. Van Benthuyzen and Sons, 111 pp.
- . 1868. Second catalogue of shells presented by the Smithsonian Institution to the State Museum, pp. 41–54. In Twentieth Annual Report of the Regents of the University of the State of New York, on the Condition of the State Cabinet of Natural History and the Historical and Antiquarian Collection Annexed Thereto. Albany: C. Van Benthuyzen and Sons, 411 pp., 23 pls.
- HANNA, G. D., AND L. G. HERTLEIN. 1943. Characteristic fossils of California. California Department of Natural Resources, Division of Mines Bulletin, 118: 165–182, pls. 60–67.
- HANNA, M. A. 1927. An Eocene invertebrate fauna from the La Jolla Quadrangle, California. University of California Publications, Bulletin of the Department of Geological Sciences, 16(8): 247–398, pls. 24–57.
- HARMER, F. W. 1921. The Pliocene Mollusca of Great Britain, being supplementary to S. V. Wood's Monograph of the Crag Mollusca. Palaeontographical Society Monograph, 67(2): 653–704, pls. 53–56.
- HARRIS, G. F. 1897. Catalogue of Tertiary Mollusca in the Department of Geology British Museum (Natural History). Part I. The Australasian Ter-
- tiary Mollusca. London: British Museum (Natural History), xxvi + 407 pp., 8 pls.
- HEDLEY, C. 1916. Mollusca. Australasian Antarctic Expedition 1911–1914. Scientific Reports. Series C—Zoology and Botany, 4(1): 1–80, 9 pls.
- . 1924. Some naticoids from Queensland. Records of the Australian Museum, 14(3): 154–162, pl. 22.
- HERRMANNSEN, A. N. 1846–1852. Indicis Generum Malacozoorum. Cassell: Fischer. [2 volumes + supplement. Dates of publication, 1: 1–232 (1846); 1: 233–637, 2: 1–352 (1847); 2: 353–492 (1848); 2: 493–717 (1849); Supplement, vi + 1–140 (1852).]
- HILL, J. 1752. A General Natural History. 3. An History of Animals. London: T. Osborne, iv + 588 pp., 28 pls.
- HUMPHREY, G. 1797. Museum Calonnianum. Specification of the Various Articles Which Compose the . . . Museum of Natural History Collected by M. de Calonne in France . . . [Part 1]. London, viii + 84 pp. (not seen). [Rejected Work: IZN Opinion 51, 1912.]
- INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE. 1912. Opinion 51, Shall the names of the Museum Calonnianum, 1797, be accepted? Smithsonian Publication, 2060: 116–117. [Reprinted, 1958; see also Direction 32, p. 319.]
- . 1956. Opinion 427, Rejection for nomenclatorial purposes of the work by Renier (S. A.) known as *Tavole per servire alle classificazione e connescenza degli animali* and commonly attributed to the year 1807 and addition to the *Official Indexes of Rejected and Invalid Names in Zoology* of certain names first used in the foregoing work or in two earlier works by the same author commonly known as the *Tavola alfabetica* and the *Prospetto* respectively and both commonly attributed to the year 1804. Opinions and Declarations Rendered by the International Commission on Zoological Nomenclature, 14(11): 281–310.
- . 1958. Opinion 521, Addition to the *Official Index of Rejected and Invalid Works in Zoological Nomenclature* of the title of the paper by Otto Fabricius issued in Copenhagen in 1823 as *Fortegnelse over afgangne Biskop Fabricius' ses efterladte Naturalier*. Opinions and Declarations Rendered by the International Commission on Zoological Nomenclature, 19(8): 201–208.
- . 1985. International Code of Zoological Nomenclature. Third edition. Berkeley: Univ. of California Press, xx + 338 pp.
- IREDALE, T. 1916. On two editions of Duméril's *Zoologie analytique*. Proceedings of the Malacological Society of London, 12(2–3): 79–84.
- . 1924. Results from Roy Bell's Molluscan collections. Proceedings of the Linnean Society of New South Wales, 49(3): 179–278.

- 1929. Queensland molluscan notes. No. 1. Memoirs of the Queensland Museum, **9**(3): 261–297.
- 1931. Australian molluscan notes. No. 1. Records of the Australian Museum, **18**(4): 201–235.
- 1936. Australian molluscan notes. No. 2. Records of the Australian Museum, **19**(5): 267–340, pls. 20–24.
- IREDALE, T., AND D. F. McMICHAEL. 1962. A reference list of the marine Mollusca of New South Wales. The Australian Museum Sydney, Memoir, **11**: 1–109.
- JANKOWLEW, N. 1899. Die Fauna einiger oberpalaeozoischer Ablagerungen Russlands. I. Die Cephalopoden und Gastropoden. Mémoires du Comité Géologique (St. Pétersbourg), **15**(3): 81–140, 5 pls.
- KABAT, A. R. 1989. Choristidae Verrill, 1882 (Mollusca, Gastropoda) and Choristidae Esben-Petersen, 1915 (Insecta, Mecoptera): a proposal to remove the homonymy. Bulletin of Zoological Nomenclature, **46**(3): 156–160.
- 1990. Species of Naticidae (Mollusca: Gastropoda) described by Linnaeus in the *Systema Naturae* (1758). Zoological Journal of the Linnean Society, **100**(1): 1–25.
- KADOLSKY, D. 1971. Nomenklatorische Bemerkungen. Archiv für Molluskenkunde, **101**(1–4): 191–193.
- KASE, T. 1990. Late Cretaceous gastropods from the Izumi Group of southwest Japan. Journal of Paleontology, **64**(4): 563–578.
- KENNARD, A. S. 1942a. The *Histoire* and *Prodrome* of Féruccac. Part II. Proceedings of the Malacological Society of London, **25**(3): 105–110.
- 1942b. The *Histoire* and *Prodrome* of Féruccac. Part III. Proceedings of the Malacological Society of London, **25**(3): 111–118.
- KILBURN, R. N. 1976. A revision of the Naticidae of Southern Africa and Moçambique (Mollusca). Annals of the Natal Museum, **22**(3): 829–884.
- 1988. Description of a new species of *Eunaticina* (*Gennaeosinum*), with notes on some other members of the subgenus (Mollusca: Gastropoda: Naticidae). Annals of the Natal Museum, **29**(2): 523–527.
- KNIGHT, J. B. 1941. Paleozoic gastropod genotypes. Geological Society of America, Special Papers, **32**: vi + 510 pp., 96 pls.
- KNIGHT, J. B., R. L. BATTEN, AND E. L. YOCHELSON. 1960. Systematic descriptions (Paleozoic Archaeogastropoda), pp. I169–I310. In R. C. Moore (ed.), Treatise on Invertebrate Paleontology, Part I, Mollusca 1. New York and Lawrence: Geological Society of America and University of Kansas Press, xxiv + 351 pp.
- KOKEN, E. 1889. Ueber die Entwicklung der Gastropoden vom Cambrium bis zur Trias. Neues Jahrbuch für Mineralogie, Geologie, und Paläontologie, Beilage-Band, **6**(3): 305–484, pls. 10–14.
- 1896. Die Gastropoden der Trias um Hallstatt. Jahrbuch der Kaiserlich-Königlichen Geologischen Reichsanstalt, **46**(1): 37–126.
- 1897. Die Gastropoden der Trias um Hallstatt. Abhandlungen der Kaiserlich-Königlichen Geologischen Reichsanstalt, **17**(4): 1–112, pls. 1–23.
- KONICK, L. DE. 1881. Faune du calcaire Carbonifère de la Belgique. (3). Gastéropodes. Annales du Musée Royal d'Histoire Naturelle de Belgique, Série Paléontologique, **6**: 1–170, pls. 1–21.
- KOTAKA, T. 1962. Marine Mollusca dredged by the "S.S. Hokuhō-maru" during 1959 in the Okhotsk Sea. Science Reports of the Tohoku University [Sendai], (ser. 2), Geology, Special Volume, **5**: 127–158, pls. 33–35.
- KRUEGER, J. F. 1823 [in 1822–1823]. Geschichte der Urwelt in Umrissen, Vol. 2. Quedlinburg and Leipzig: G. Basse, viii + 967 pp.
- KURODA, T., T. HABE, AND K. OYAMA. 1971. The Sea Shells of Sagami Bay. Collected by His Majesty the Emperor of Japan. Tokyo: Maruzen, xix + 741 + 489 + 51 pp., 121 pls.
- KUTASSY, A. 1940. Glossophora triadica II. Fossilium Catalogus I: Animalia, **81**: vi + 243–477. Neubrandenburg: Gustav Feller.
- LADD, H. S. 1934. Geology of Vitilevu, Fiji [Mollusca: pp. 164–237]. Bernice P. Bishop Museum, Bulletin, **119**: 1–263, 44 pls.
- 1977. Cenozoic fossil mollusks from western Pacific islands; Gastropods (Eratoidae through Harpidae). United States Geological Survey, Professional Paper, **533**: iv + 84 pp., 23 pls.
- LAMARCK, J.-B. P.-A. DE M. DE. 1799. Prodrome d'une nouvelle classification des coquilles, comprenant une rédaction appropriée des caractères génériques, et l'établissement d'un grand nombre de genres nouveaux. Mémoires de la Société d'Histoire Naturelle de Paris, An. VII [Volume 1]: 63–91.
- 1804. Suite des mémoires sur les fossiles des environs de Paris. Annales du Muséum National d'Histoire Naturelle, **5**: 28–36.
- LAUBE, G. C. 1866. Die Fauna der Schichten von St. Cassian. Ein Beitrag zur Paläontologie der Alpinen Trias. III. Gastropoden, 1. Denkschriften der Kaiserlichen Akademie der Wissenschaften, mathematisch-naturwissenschaftliche classe, **28**(2): 29–90, pls. 21–28.
- LINNAEUS, C. 1758. Systema Naturae per regna tria naturae, secundum classes, ordines, genera, species, cum characteribus, differentiis, synonymis, locis. Tomus I, Editio Decima, Reformata. Holmiae: Laurentii Salvii, iv + 823 pp. [Reprinted, 1939, London: British Museum (Natural History).]
- LOCH, I. 1988. *Gennaeosinum* for geriatrics. Australian Shell News, **63**: 8.
- MACGILLIVRAY, W. 1843. A History of the Molluscous Animals of the Counties of Aberdeen, Kincardine, and Banff. London: Cunningham and Mortimer, xxiv + 372 pp.

- MACNEIL, F. S. (MACNEIL AND DOCKERY). 1984. Lower Oligocene Gastropoda, Scaphopoda, and Cephalopoda of the Vicksburg Group in Mississippi. Mississippi Bureau of Geology, Bulletin, **124**: 1–415, 72 pls. [Naticidae by MacNeil.]
- MACPHERSON, J. H., AND C. J. GABRIEL. 1962. Marine Molluscs of Victoria. Melbourne: National Museum of Victoria [Handbook No. 2], xvi + 475 pp.
- MAEDA, T. 1988. The structure of osphradium of three subfamilies in Naticidae with reference to their morphology and ecology. *Venus, the Japanese Journal of Malacology*, **47**(2): 121–126.
- MAGNE, A., AND A.-M. VERGNEAU-SAUBADE. 1973. Le genre *Cepatia* dans le golfe nummulitique du sud de l'Aquitaine. *Bulletin de la Société de Borda*, **350**: 239–244, pl. 1.
- MAJIMA, R. 1989. Cenozoic fossil Naticidae (Mollusca: Gastropoda) in Japan. *Bulletins of American Paleontology*, **96**(331): 1–159, pls. 1–14.
- MALLADA, L. 1887. Sinopsis de las especies fósiles que se han encontrado en España. III. Terreno Mesozoico (Cretáceo inferior). *Boletín de la Comisión del Mapa Geológico de España*, **14**: xix + 1–174, 20 pls.
- MANSFIELD, W. C. 1930. Miocene Gastropods and Scaphopods from the Choctawhatchee Formation of Florida. *Florida State Geological Survey Bulletin*, **3**: 1–142.
- MARINCOVICH, L. N., JR. 1977. Cenozoic Naticidae (Mollusca: Gastropoda) of the northeastern Pacific. *Bulletins of American Paleontology*, **70**(294): 165–494, pls. 17–42.
- MARTENS, E. [C.] VON. 1904["1903"]. Systematisch-geographischer Teil. In E. von Martens und J. Thiele, Die beschalten Gastropoden der deutschen Tiefsee-Expedition 1898–1899. Wissenschaftliche Ergebnisse der deutschen Tiefsee-Expedition auf dem Dampfer "Valdivia" 1898–1899, **7** (1, A), 1–146, pls. 1–5. Jena.
- MARTIN, K. 1914. Die Fauna des Obereocäns von Nanggulan, auf Java. A. Gastropoda. Sammlungen des Geologischen Reichs-Museum in Leiden, N.F., **2**(4): 107–178.
- MARWICK, J. 1924. The Tertiary and Recent Naticidae and Naricidae of New Zealand. *Transactions of the New Zealand Institute*, **55**: 545–579.
- . 1931. The Tertiary Mollusca of the Gisborne District. *New Zealand Geological Survey Palaeontological Bulletin*, **13**: 1–177.
- MATSUI, S. 1985. Recurrent molluscan associations of the Omma-Manganji fauna in the Gojome-Oga area, northeast Honshu, Part 1. General discussions of fauna and systematic notes on gastropod and scaphopod species. *Transactions and Proceedings of the Palaeontological Society of Japan (n.s.)*, **139**: 149–179, pls. 22–23.
- MCCOY, F. 1842. See R. J. Griffith (1842).
- MEEK, F. B. 1876. A report on the invertebrate Cretaceous and Tertiary fossils of the Upper Missouri country. Report, U.S. Geological Survey of the Territories (ed. F. V. Hayden), **9**: 1–629, 45 pls.
- MEEK, F. B., AND A. H. WORTHEN. 1865. Contributions to the palaeontology of Illinois and other western states. *Proceedings of the Academy of Natural Sciences of Philadelphia*, **1865**: 245–273.
- . 1866. Descriptions of invertebrates from the Carboniferous System. *Geological Survey of Illinois, Palaeontology*, **2**(2): 143–411, pls. 14–32.
- MELVILLE, J. C. 1897. Upon the principles of nomenclature, and their application to the genera of Recent Mollusca. *Journal of Conchology*, **8**(13): 435–479.
- . 1899. Notes on the Mollusca of the Arabian Sea, Persian Gulf, and Gulf of Oman, mostly dredged by Mr. F. W. Townsend, with descriptions of twenty-seven species. *Annals and Magazine of Natural History*, (7) **4**: 81–101, pls. 1–2.
- MENKE, K. T. 1828. *Synopsis methodica molluscorum generum omnium et specierum earum, quae in Museo Menkeano adservantur; cum synonymia critica et novarum specierum diagnosis*. Pyrmont: Henrici Gelpke, xii + 91 pp.
- . 1830. *Synopsis methodica molluscorum generum omnium et specierum earum, quae in Museo Menkeano adservantur; cum synonymia critica et novarum specierum diagnosis*, 2nd edition. Pyrmont: Georgi Uslar, xvi + 168 pp.
- MEUSCHEN, F. C. 1779. *Conchyliologische Briefe an Herrn Hofrat Walch*. Erster Brief. *Der Naturforscher*, **13**: 78–85, pl. 5.
- MEYER, O., AND T. H. ALDRICH. 1886. The Tertiary Fauna of Newton and Wautubbee, Miss. *Journal of the Cincinnati Society of Natural History*, **9**(2): 40–50 (=104–114), pl. 2.
- MILLAR, J. 1817. *Helminthology*. Vol. 10, pp. 330–365, pls. 251–253. In *Encyclopaedia Britannica*, Fifth Edition. Edinburgh: Encyclopaedia Press. (In 20 volumes.)
- MONTFORT, P. D. DE. 1810. *Conchyliologie systématique et classification méthodique des coquilles*. . . . Paris: F. Schoell, Vol. 2, 678 pp.
- MÖLLER, H. P. C. 1842. *Index Molluscorum Groenlandiae*. *Naturhistorisk Tidskrift*, **4**(1): 76–97. [Also as a separate, pp. 1–24, Hafniae.]
- MÖRCH, O. A. L. 1852 [post August 1]. *Catalogus Conchyliorum quae reliquit D'Alphonso D'Aquirra & Gadea Comes de Yoldi . . . Fasciculus Primus. Cephalophora*. Hafniae: Ludovici Klein, 170 pp.
- . 1857. Fortegnelse over Grönlands Blöddyr, pp. 75–100. In H. J. Rink (ed.), *Grönland geographisk og Statistik beskrevet*, 2 (Appendix), No. 4. [As separate, "Prodromus Faunae Molluscorum Grönlandiae," pp. 3–28.]
- MÜNSTER, G. VON. 1841 [in 1839–1846]. Beiträge zur Petrefacten-Kunde . . . (Vol. 4 of 7), Beiträge zur Geognosie und Petrefacten-Kunde des Südöstlichen Tirol's vorzüglich der Schichten von St. Cassian. Bayreuth: Buchner'schen, 152 pp. + 16 pls.
- MUNIER-CHALMAS, E.-P.-A. 1884. *Miscellanées pa-*

- léontologiques. *Annales de Malacologie*, **1**: 323–380, pls. 7–8.
- NEAVE, S. A. (ED.). 1939–1940. *Nomenclator Zoologicus* [1758–1935]. London: Zoological Society of London, 4 volumes [xiv + 3805 pp.]. [Subsequent volumes: 1950 (vi + 308 pp.); 1966 (x + 329 pp.); 1975 (vi + 374 pp.).]
- NODA, H. 1980. Molluscan fossils from the Ryukyu Islands, southwestern Japan. Part 1. Gastropoda and Pelecypoda from the Shinzato Formation in southeastern part of Okinawa-jima. *Science Reports of the Institute of Geoscience, University of Tsukuba, Section B, Geological Sciences*, **1**: 1–195, pls. 1–12.
- NOMURA, S. 1935. Fossil Mollusca from the vicinity of Ogino, Yama-gun, Hukusima-ken. *Saito Honon Kai Museum, Research Bulletin*, **5**: 101–130, pls. 5–7.
- OKEN, L. 1835. *Allgemeine Naturgeschichte fuer alle Staende*. Stuttgart: Hoffmann'sche Verlags, Volume 5, part 1, 538 pp. [In 13 volumes, 1833–1843.]
- OKUTANI, T. 1968. Bathyal and abyssal Mollusca trawled from Sagami Bay and the south off Boso Peninsula by the R/V *Soyo-Maru*, 1965–1967. *Bulletin of Tokai Regional Fisheries Research Laboratory*, **56**: 7–55, pls. 1–3.
- OLIVEIRA, M. P. DE. 1988 ["1987"]. Chaves dicotómicas conquílio malacológicas. Brasil: Universidade Federal de Juiz de Fora, Minas Gerais, 155 pp.
- OLIVEIRA, M. P. DE, AND M. H. R. DE OLIVEIRA. 1984. Liste des types de mollusques du Brésil de la collection générale du Musée de Genève. *Boletim do Instituto de Ciências Biológicas e de Geociências*, **38**: 39–46.
- OLIVEIRA, M. P. DE, G. DE J. R. REZENDE, AND G. A. DE CASTRO. 1981. Catálogo dos moluscos da Universidade Federal de Juiz de Fora. Sinonímia de Família, Gênero e Espécie. Universidade Federal de Juiz de Fora, Minas Gerais, 520 pp.
- OLSSON, A. 1930. Contributions to the Tertiary paleontology of Northern Peru: Part 3, Eocene Mollusca. *Bulletins of American Paleontology*, **17**(2): 1–96.
- OYAMA, K. 1969. Systematic revision of Japanese Naticidae (preliminary report). *Venus, The Japanese Journal of Malacology*, **28**(2): 69–88, pls. 4–5.
- . 1985. Notes on classification of the family Naticidae. *Special Publication of the Mukaishima Marine Biological Station*, **1985**: 17–21.
- PALMER, K. V. W. 1937. The Claibornian Scaphopoda, Gastropoda, and Dibranchiate Cephalopoda of the southern United States. *Bulletins of American Paleontology*, **7**(32): 1–730, pls. 1–90.
- . 1942. Substitutes for molluscan homonyms. *Journal of Paleontology*, **16**(5): 674.
- PAN, H. 1982. Late Triassic-Early Jurassic gastropods from eastern Hunan and northeastern Guangxi. *Memoirs of the Nanjing Institute of Geology and Palaeontology*, **17**: 85–116.
- PCHELINTSEV, V. F. 1963. *Bryukhonogie Mezozoya Gornogo Kriyma [=Mesozoic Gastropods of the Crimean Mountains]*. Moscow: Akademii Nauk SSSR, 131 pp., 22 pls. [In Russian.]
- PEASE, W. H. 1869. Liste des espèces supposées appartenir au genre *Assiminea* de Leach. *Journal de Conchyliologie*, **17**(2): 161–167.
- PERNER, J. 1903. [in J. Barrande], *Système Silurien du Centre de la Bohême. I: Recherches Paléontologiques. IV. Gastéropodes*, I. Prague. [transl. A. S. Oudin], xii + 164 pp., pls. 1–89.
- . 1907. [in J. Barrande], *Système Silurien du Centre de la Bohême. I: Recherches Paléontologiques. IV. Gastéropodes*, II. Prague. [transl. A. S. Oudin], xii + 380 pp., pls. 90–175.
- . 1911. [in J. Barrande], *Système Silurien du Centre de la Bohême. I: Recherches Paléontologiques. IV. Gastéropodes*, III. Prague. [transl. A. S. Oudin], xviii + 390 pp., pls. 176–247.
- PERVINQUIERE, L. 1912. *Etudes de paléontologie tunisienne. II. Gastropodes et lamellibranches des terrains crétacés. Carte géologique de la Tunisie*. Paris: Lamarre, 352 + xiv pp., 22 pls.
- PETIT, R. E. 1986. Note on *Cryptonatica* Dall, 1892 (Gastropoda: Naticidae). *The Nautilus*, **100**(1): 38.
- PETUCH, E. J. 1988. *Neogene History of Tropical American Mollusks: Biogeography and Evolutionary Patterns of Tropical Western Atlantic Mollusca*. Charlottesville (Virginia): The Coastal Education and Research Foundation, 217 pp. + Errata.
- PHILIPPI, R. A. 1853. *Handbuch der Conchyliologie und Malacozoologie*. Halle: Anton, xx + 547 pp.
- PILSBRY, H. A. 1929. *Neverita reclusiana* (Desh.) and its allies. *The Nautilus*, **42**(4): 109–113, pl. 6.
- MONTERO, W. F. 1985a. A review of the genera of Rissoidae (Mollusca: Mesogastropoda: Rissacea). *Records of the Australian Museum, Supplement*, **4**: 1–221.
- . 1985b. The anatomy and relationships of *Elachisina* Dall (Gastropoda: Rissacea). *Journal of Molluscan Studies*, **51**(1): 23–34.
- MONTERO, W. F., AND A. WARÉN. 1988. Appendix: Classification of the Caenogastropoda and Heterostropha—A list of the family-group names and higher taxa. *Prosobranch Phylogeny; Malacological Review, Supplement*, **4**: 288–326.
- PONZI, G. 1872. I fossili del bacino di Roma, e la fauna Vaticana. *Atti della Reale Accademia dei Lincei*, **25**: 77–80.
- . 1876. I fossili del Monte Vaticano. *Atti della Reale Accademia dei Lincei*, (ser. 2) **3**(2): 925–959, pls. 1–3.
- POOPENOE, W. P., L. R. SAUL, AND T. SUSUKI. 1987. Gyrodiform gastropods from the Pacific coast Cretaceous and Paleocene. *Journal of Paleontology*, **61**(1): 70–100.
- POWELL, A. W. B. 1933. Notes on the taxonomy of the recent Cymatiidae and Naticidae of New Zealand. *Transactions of the New Zealand Institute*, **63**: 154–170.

- . 1951. Antarctic and Subantarctic Mollusca: Pelecypoda and Gastropoda. *Discovery Reports*, **26**: 47–196, pls. 5–10.
- RANG, P. C. S. A. L. 1829. Manuel de l'histoire naturelle des mollusques et leurs coquilles, ayant pour base de classification celle de M. Le Baron Cuvier. Paris: Roret, iv + 390 + 16 pp., 51 pls.
- RAULIN, F. V. 1844. *G. Deshayesia*, Raulin. Magasin de Zoologie, (2) **6**: text to plate 3 (pp. 1–4).
- RÉCLUZ, C. A. 1851. Description de quelques coquilles nouvelles. *Journal de Conchyliologie*, **2**(2): 194–216, pls. 5–6.
- . 1856. Histoire du G. Natice (*Natica Adanson*). *Journal de Conchyliologie*, **5**(1): 43–64.
- REHDER, H. A. 1943. New marine mollusks from the Antillean region. *Proceedings of the United States National Museum*, **93**(3161): 187–203, pls. 19–20.
- RENIER, S. A. 1807. [Tavole per servire alle Clasificazione e Connescenza degli Animali]. Padova, 8 tav. [Rejected work: ICBN Opinion 427, 1956.]
- REPELIN, J. 1902. Description des faunes et des gisements du Cénomanien saumatre ou d'eau douce du Midi de la France. *Annales du Musée d'Histoire Naturelle de Marseille*, Section de Géologie, **7**: 25–112, pls. 1–8.
- RISSE, A. 1826. Histoire naturelle des principales productions de l'Europe méridionale et particulièrement de celles des environs de Nice et des Alpes Maritimes. Paris: Levrault, Vol. 4, 438 pp., 12 pls.
- RÖDING, P. F. 1798 [December]. *Museum Boltenianum sive Catalogus Cimeliorum e tribus regnis naturae . . . pars secunda continens Conchylia sive Testacea univalvia, bivalvia et multivalvia*. Hamburg: J. C. Trappi, vii + 109 pp. [Reprinted, 1906, Watford (England): Reader.]
- ROSENBERG, G., AND R. E. PETIT. 1987. Ryckholt's *Mélanges Paléontologiques*, 1851–1862, with a new name for *Tudicula* H. & A. Adams, non Ryckholt. *Proceedings of the Academy of Natural Sciences of Philadelphia*, **139**: 53–64.
- ROSEWATER, J. 1970. The family Littorinidae in the Indo-Pacific. Part I. The subfamily Littorininae. *Indo-Pacific Mollusca*, **2**(11): 417–506 [=05-261-05-410], pls. 325–387.
- RYCKHOLT, BARON P. DE. 1851 [in 1851–1862]. *Mélanges paléontologiques*. Part 1. Mémoires Couronnés et Mémoires des Savants Etrangers de l'Académie Royale des Sciences, des Lettres et des Beaux-Arts de Belgique, **24**: 1–176, pls. 1–10.
- SACCO, F. 1890a [February 5]. Catalogo paleontologico del bacino terziario di Piemonte. Roma: Reale Accademia dei Lincei, 233 pp. Also published in *Bollettino della Società Geologica Italiana*, **8**(3): 281–356, **9**(2): 185–240. [See B. A. Marshall, 1991, *The Nautilus*, **105**(3): 104–115.]
- . 1890b [August 12]. I Molluschi dei Terreni Terziari del Piemonte e della Liguria. Parte VIII. (Galeodoliidae, Doliidae, Ficulidae, Naticidae). *Nota Preventiva. Bollettino dei Musei di Zoologia ed Anatomia comparata della Reale Università di Torino*, **5**(86): 21–43.
- . 1891. I Molluschi dei Terreni Terziari del Piemonte e della Liguria. Parte VIII. Galeodoliidae, Doliidae, Ficulidae e Naticidae. *Memorie della Reale Accademia delle Scienze di Torino*, (2) **41**: 225–338, pls. 1–2. [Reprint, March 25, 1891, pp. 1–114, pls. 1–2.]
- SALSBURY, A. E. 1932. Mollusca. *Zoological Record* [for 1931], **68**(8): 1–120. London: Zoological Society.
- SALSBURY, A. E., M. A. EDWARDS, AND P. CURDS. 1963. Mollusca. *Zoological Record* [for 1960], **97**(9): 1–130. London: Zoological Society.
- SCHILEYKO, A. A. 1977. Materials on the morphology of the Naticoidea and problems of the taxonomy of the superfamily (Mollusca: Mesogastropoda). *Trudy Okeanologicheskogo Instituta Akademii Nauk SSSR*, Moscow, **108**: 77–97. [In Russian.]
- SCHUMACHER, C. F. 1817. Essai d'un nouveau système des habitations des vers testacés. Copenhagen: Schultz, iv + 287 pp., 22 pls.
- SCOPOLI, G. A. 1777. *Introductio ad historiam naturalen, sistens genera Lapidum, Plantarum et Animalium, hactenus detecta, characteristibus essentialibus donata, in tribus divisa, subinde ag leges naturae*. Prague: Wolfgangum Gerle, x + 506 + 34 pp.
- SHARPE, D. 1849. On *Tylostoma*, a proposed genus of gasteropodous mollusks. *The Quarterly Journal of the Geological Society of London*, **5**(1): 376–380, pl. 9.
- SHIKAMA, T. 1971. On some noteworthy marine Gastropoda from Southwestern Japan (III). *Science Reports of the Yokohama National University, Section II, Biological and Geological Sciences*, **18**: 28–36, pl. 3.
- SIMROTH, H. 1907 [in 1896–1907]. Dr. H. G. Bronn's Klassen und Ordnungen des Tier-Reichs, wissenschaftlich dargestellt in Wort und Bild. 3, Mollusca (Weichtiere), Abteilung II, Gastropoda Prosobranchia, Lief. **90–94**: 945–1056. Leipzig: C. F. Winter'sche Verlagshandlung.
- SMITH, J. 1839. Catalogue of recent shells in the basin of the Clyde and north coast of Ireland; and of shells from the newer Pliocene deposits in the British Isles. *Wernerian Natural History Society, Edinburgh, Memoirs*, **8**(1): 89–113, pls. 1–2.
- SOHL, N. F. 1967. Upper Cretaceous gastropods from the Pierre Shale at Red Bird, Wyoming. *United States Geological Survey, Professional Paper*, **393-B**: 1–46, pls. 1–11.
- SOUVERBIE, [ST.-M.], AND [X.] MONTROUZIER. 1875. Description d'espèces nouvelles de l'Archipel Calédonien. *Journal de Conchyliologie*, **23**(1): 33–43.
- SOWERBY, G. B., II. 1883. Monograph of the genus *Natica*. *Thesaurus Conchyliorum*, or figures and

- descriptions of Recent shells, **39/40**: 75–104, pls. 1–9 [=pls. 454–462]. London: Sowerby.
- SOWERBY, J. 1812–1846. The Mineral Conchology of Great Britain; or coloured figures and descriptions of those remains of Testaceous animals or shells, which have been preserved at various times, and depths in the earth. London: Benjamin Meredit, 7 volumes [Volumes 4 (part)–7 by J. de C. Sowerby; see Cleevely, 1974].
- . 1837a [July 25]. Mineral-Conchologie Grossbritanniens, von James Sowerby; deutsche Bearbeitung, herausgegeben von Hercules Nicolet, durchgesehen von Dr. Agassiz. Neuchâtel: H. Nicolet, 52 pp., 21 pls. [Reprinted 1839, along with the remaining parts.]
- . 1837b. Conchologie [sic] minéralogique de la Grande-Bretagne . . . par James Sowerby. Traduction française, revue et corrigée par L. Agassiz. Neuchâtel: H. Nicolet, 52 pp., 21 pls. [Reprinted 1839, along with the remaining parts.]
- . 1839a–1844. J. Sowerby's Mineral-Conchologie Grossbritanniens oder ausgemalte Abbildungen und Beschreibungen der Schalthier-Ueberreste welche zu verschiedenen Zeiten und in verschiedene Tiefen der Erde erhalten worden sind. Deutsch bearbeitet von E. Desor. Durchgesehen und mit Anmerkungen und Berichtigungen versehen von L. Agassiz. Solothurn: Jent & Gassmann, 689 pp., 395 pls. [Part 1, pp. 1–52, originally issued July 25, 1837; reissued 1839; remaining parts through 1844.]
- . 1839b–1845. Conchyliologie minéralogique de la Grande-Bretagne par James Sowerby. Traduit de l'Anglais par E. Desor. Atec [sic] un avant-propos et des notes contenant de nombreuses additions et rectifications par L. Agassiz. Soleure: Jent & Gassmann, viii + 682 pp., 404 pls. [Part 1, pp. 1–52, originally issued 1837; reissued 1839; remaining parts through 1845.]
- SOWERBY, J. DE C. 1835 [August 1]. Systematical, stratigraphical, and alphabetical indexes to the first six volumes of the Mineral Conchology of Great Britain. The Mineral Conchology of Great Britain, **6**(105): 241–250.
- STEPHENSON, L. W. 1923. Invertebrate fossils of the Upper Cretaceous formations, pp. 1–402, pls. 1–100. In The Cretaceous Formations of North Carolina. North Carolina Geological and Economic Survey, **5**(1): xii + 604 pp., 102 pls.
- . 1941. The larger invertebrate fossils of the Navarro Group of Texas. (Exclusive of corals and crustaceans and exclusive of the fauna of the Escondido Formation). University of Texas Publication, 4101: 641 pp., 95 pls.
- STEWART, R. B. 1927 ["1926"]. Gabb's California fossil type gastropods. Proceedings of the Academy of Natural Sciences of Philadelphia, **78**: 287–447, pls. 20–32.
- STOLICZKA, F. 1867–1868. Cretaceous fauna of southern India. II. The Gastropoda of the Cretaceous rocks of southern India. Palaeontologica Indica [Memoirs of the Geological Survey of India], **5**: 1–498, pls. 1–28.
- SWAINSON, W. 1835. The Elements of Modern Conchology. London: Baldwin and Cradock, viii + 62 pp.
- . 1840 [May 20]. A Treatise on Malacology; or the Natural Classification of Shells and Shell Fish. London: Longman, vii + 419 pp.
- TATE, R. 1893. The gastropods of the Older Tertiary of Australia. Part IV. (including supplement to Part III). Transactions of the Royal Society of South Australia, **17**(2): 316–345, pls. 6–10.
- TAYLOR, D. W., AND N. F. SOHL. 1962. An outline of gastropod classification. Malacologia, **1**(1): 7–32.
- TAYLOR, J. D., R. J. CLEEEVELY, AND N. J. MORRIS. 1983. Predatory gastropods and their activities in the Blackdown Greensand (Albian) of England. Palaeontology, **26**(3): 521–553.
- THIELE, [E. K. H.] J. 1912. Die antarktischen Schnecken und Muscheln. Deutsche Südpolar-Expedition 1901–1903, **13** (Zoologie 5), 2: 183–285, pls. 11–19.
- . 1913. (Review of Thiele, 1912). Zentralblatt für Zoologie, allgemeine und experimentelle Biologie, **2**(3): 86–87.
- . 1929–1931. Handbuch der systematischen Weichterkunde. Jena: Gustav Fischer, Vol. 1, vi + 778 pp. [Reprinted, 1963, Amsterdam: A. Asher and Co.]
- TIBA, R. 1985. Descriptions of two new species of the family Naticidae. Bulletin of the Institute of Malacology, Tokyo, **2**(2): 19–20, pls. 9–10.
- . 1986. Emendation of a generic name. Bulletin of the Institute of Malacology, Tokyo, **2**(5): 79.
- TOMLIN, J. R. LE B. 1930. Some preoccupied generic names—II. Proceedings of the Malacological Society of London, **19**(1): 22–24.
- TRYON, G. W. 1886. Manual of Conchology, Structural and Systematic. With Illustrations of the Species, Vol. 8. Naticidae, Calyptaeidae, Turritellidae, Vermetidae, Caecidae, Eulimidae, Turbonillidae, Pyramidellidae. Philadelphia [priv. publ.], 461 pp., 79 pls.
- VAUGHT, K. C. 1989. A Classification of the Living Mollusca. Melbourne (Florida): American Malacologists, Inc., xiii + 189 (195) pp.
- VERRILL, A. E. 1882. Catalogue of marine Mollusca added to the fauna of the New England region, during the past ten years. Transactions of the Connecticut Academy of Sciences, **5**(2): 447–588, pls. 42–44, 57–58.
- VEVERS, H. G. (ED.). 1975. Mollusca. The Zoological Record [for 1971], **108**(9): x + 278. London: Zoological Society.
- VON HIERING, H. 1903. Les mollusques des terrains Crétaciques supérieurs de l'Argentine Orientale. Anales del Museo Nacional de Buenos Aires, (3) **2**: 193–229.
- WARÉN, A., AND P. BOUCHET. 1988. A new species

- of Vanikoridae from the western Mediterranean, with remarks on the northeast Atlantic species of the family. *Bollettino Malacologico*, **24**(5–8): 73–100.
- WENZ, W. 1938–1944. Gastropoda, Teil 1, Allgemeiner Teil und Prosobranchia. In O. H. Schindewolf (ed.), *Handbuch der Paläozoologie*, Band 6. Berlin-Zehlendorf: Gebrüder Borntraeger, xii + 1639 + 10 pp. [Naticacea: pp. 1017–1045; Oct. 1941]. [Reprinted, 1960–1962, Berlin-Nikolassee: Gebrüder Borntraeger.]
- WHITE, C. A. 1880. Description of a very large fossil gasteropod from the State of Puebla, Mexico. *Proceedings of the United States National Museum*, **3**: 140–142, pl. 2.
- WIEGMANN, A. F. A. 1832. *Handbuch der Zoologie*. Berlin: C. G. Lüderitz, vi + 622 pp.
- WILEY, E. O. 1981. Phylogenetics. The Theory and Practice of Phylogenetic Systematics. New York: John Wiley and Sons, xvi + 439 pp.
- WINCKWORTH, R. 1945. The types of the Boltenian genera. *Proceedings of the Malacological Society of London*, **26**(4–5): 136–148.
- WOLFF, H., AND V. SCHENK. 1972. Zur Taxonomie, Phylogenie und Paläogeographie von *Ampullina (Pseudamaura)* (Naticidae, Gastropoda) in der Kreide. *Neues Jahrbuch für Geologie und Paläontologie, Abhandlungen*, **140**(2): 232–254.
- WOODRING, W. P. 1928. Contributions to the geology and palaeontology of the West Indies. Miocene mollusks from Bowden, Jamaica. Part II. Gastropoda and discussion of results. *Carnegie Institute of Washington Publication*, **385**: viii + 1–564, pls. 1–40.
- . 1957. Geology and palaeontology of Canal Zone and adjoining parts of Panama. Geology and description of Tertiary mollusks (Gastropoda: Trochidae to Turritellidae). A contribution to the history of the Panamá land bridge. *United States Geological Survey Professional Paper*, **306-A**: iv + 1–145, pls. 1–23.
- WOODWARD, B. B. 1896. Mollusca. *The Zoological Record* [for 1895], **32**(7): 1–83. London: Zoological Society.
- WRIGLEY, A. 1949. English Eocene and Oligocene Naticidae. *Proceedings of the Malacological Society of London*, **28**(1): 10–30.
- YABE, H., AND K. M. HATAI. 1939. On an interesting Gastropoda from Haha-zima, Ogasawara Islands, Japan. *Japanese Journal of Geology and Geography, Transactions and Abstracts*, **16**(3–4): 209–212, pl. 7.
- YEN, T.-C. 1942. A review of Chinese gastropods in the British Museum. *Proceedings of the Malacological Society of London*, **24**(5–6): 170–289, pls. 11–28.
- ZINSMEISTER, W. J., AND H. H. CAMACHO. 1982. Late Eocene (to possibly earliest Oligocene) molluscan fauna of the La Mesta Formation of Seymour Island, Antarctic Peninsula, pp. 299–304. In C. Craddock (ed.), *Antarctic Geoscience, Symposium on Antarctic Geology and Geophysics*, Madison, Wisconsin, U.S.A., August 22–27, 1977. Madison: University of Wisconsin Press, xxviii + 1172 pp.